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Nurse/physician collaboration and its relationship to nurse job stress and job satisfaction.

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NURSE/PHYSICIAN COLLABORATION AND ITS RELATIONSHIP
TO NURSE JOB STRESS AND JOB SATISFACTION

A Dissertation Presented

by

CAROL ANN ELIADI

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF EDUCATION

May 1990

Education

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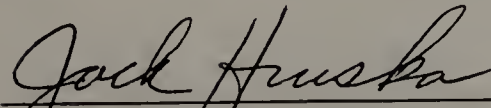
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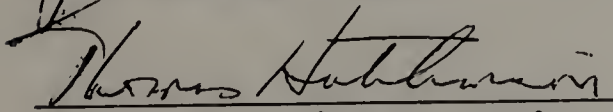
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CAROL ANN ELIADI

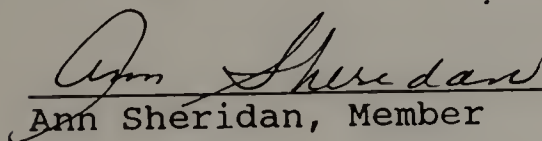
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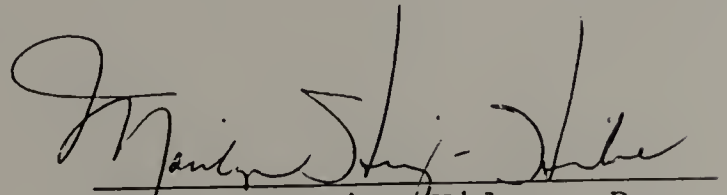
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This paper is lovingly dedicated to my late father, Patrick J. Lake.

ABSTRACT

NURSE/PHYSICIAN COLLABORATION AND ITS RELATIONSHIP
TO NURSE JOB STRESS AND JOB SATISFACTION

MAY, 1990

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The primary purpose of this study was to determine if a relationship exists between the frequency that nurses and physicians believe they practice collaboratively and the frequency that nurses report job stress related to variables surrounding conflict with physicians. The study also compared nurse and physician responses to questions dealing with acceptance of a definition of collaborative practice, satisfaction with the degree of collaboration that is present in the test facility, and the significance of nurse/physician collaboration to the recruitment and retention of nurses.

A proportionate sampling of 100 nurses and 50 physicians was selected randomly to participate in the study. A survey design was utilized which included;

The Nursing Stress Scale and Nurse Collaborative Practice Scale (distributed to nurses) and The Physician Collaborative Practice Scale (distributed to physicians). Both groups were asked to complete demographic data sheets and respond to three independent questions concerning collaborative practice.

Noteworthy findings of the study include that (a) conflict with physicians ranked third out of a total of seven stressful work related categories, (b) a significant correlation exists between the degree of dissatisfaction expressed by nurses concerning the present collaborative environment and the high degree of job stress resulting from nurse-physician conflict in the hospital setting, and (c) based upon self assessment, nurses report lower scores on collaborating with physicians than physicians report on collaborating with nurses.

Implications of the study are presented and discussed and recommendations for further study are provided.

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CHAPTER I

INTRODUCTION

Background of the Problem

The shortage of nurses in the United States has reached what some health care officials are calling epidemic proportions, and the accelerating attrition rate in nursing is creating a severe nursing shortage (Manthey, 1988). In Massachusetts alone, the Massachusetts Hospital Association estimates that in 1990, the state will experience a nursing shortage of between 35,000 to 50,000 Registered Nurses (MHA, 1987). The MHA also states that more than nine percent of all nursing positions in the state are vacant with a national vacancy rate of 17 percent (Figure 1, page 2). More than 87 percent of all hospitals in Massachusetts are experiencing a shortage of nurses or are having difficulty recruiting RNs.

The attrition rate in nursing has been due to primarily two factors: an expansion of the range of jobs now available to women, and dissatisfaction and disillusionment with nursing (Lemler and Leach, 1986). Figure 2, page 3 depicts the increases in medical

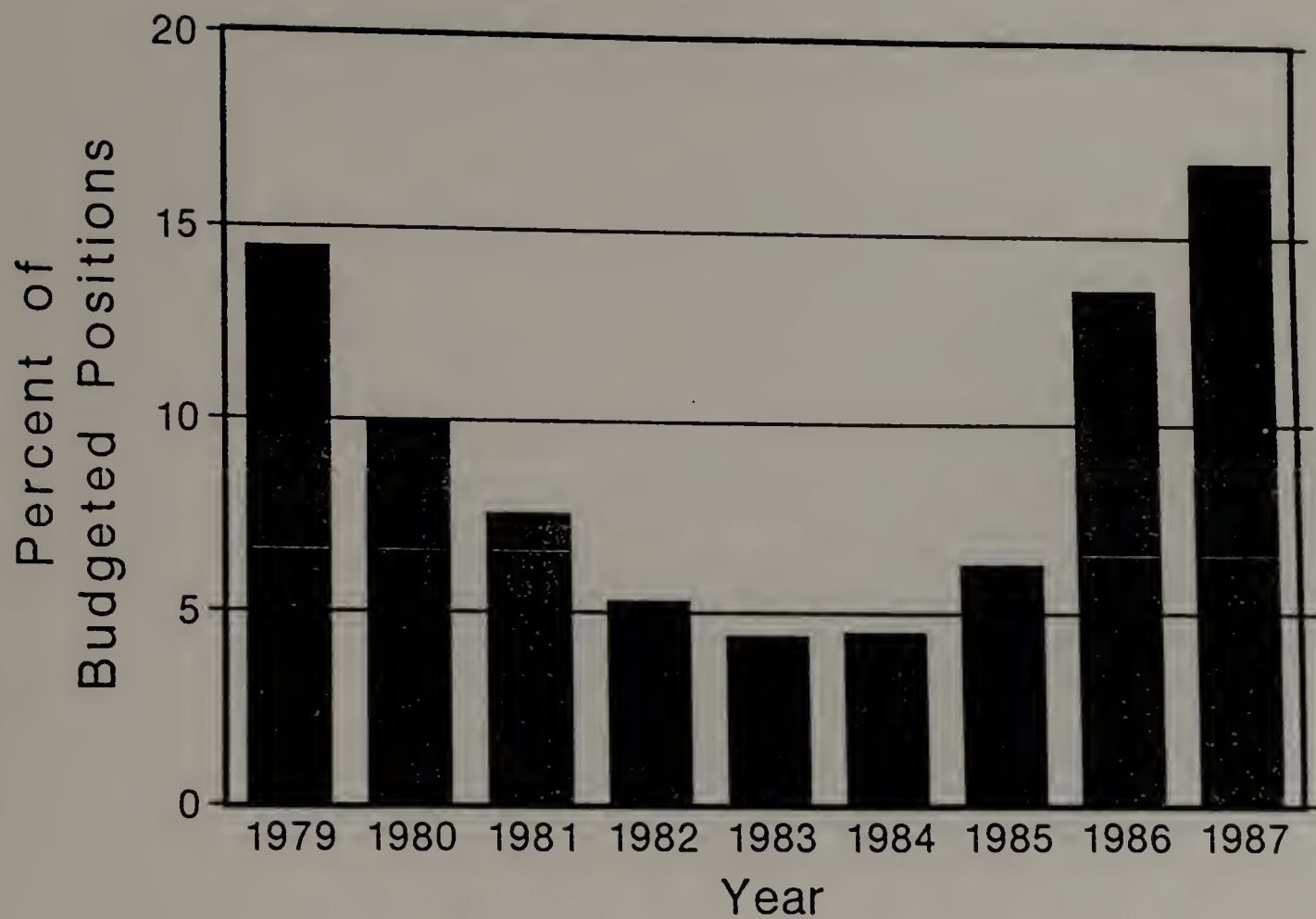
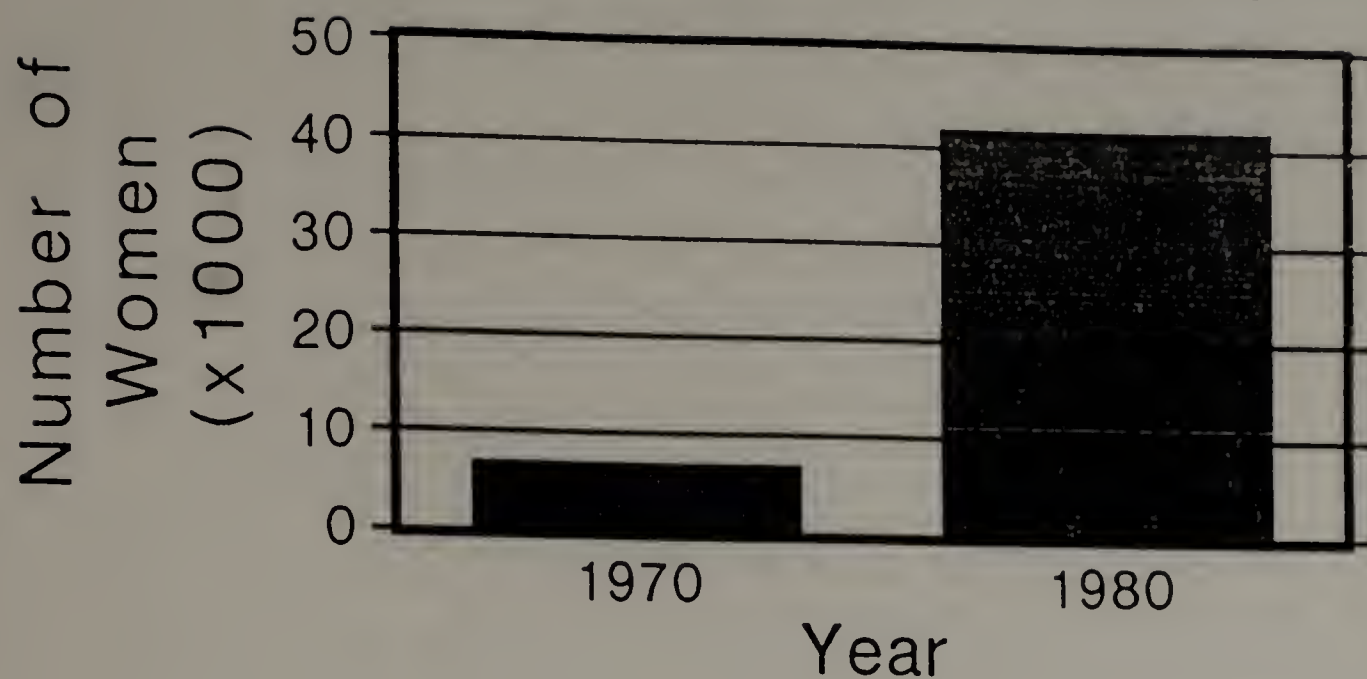
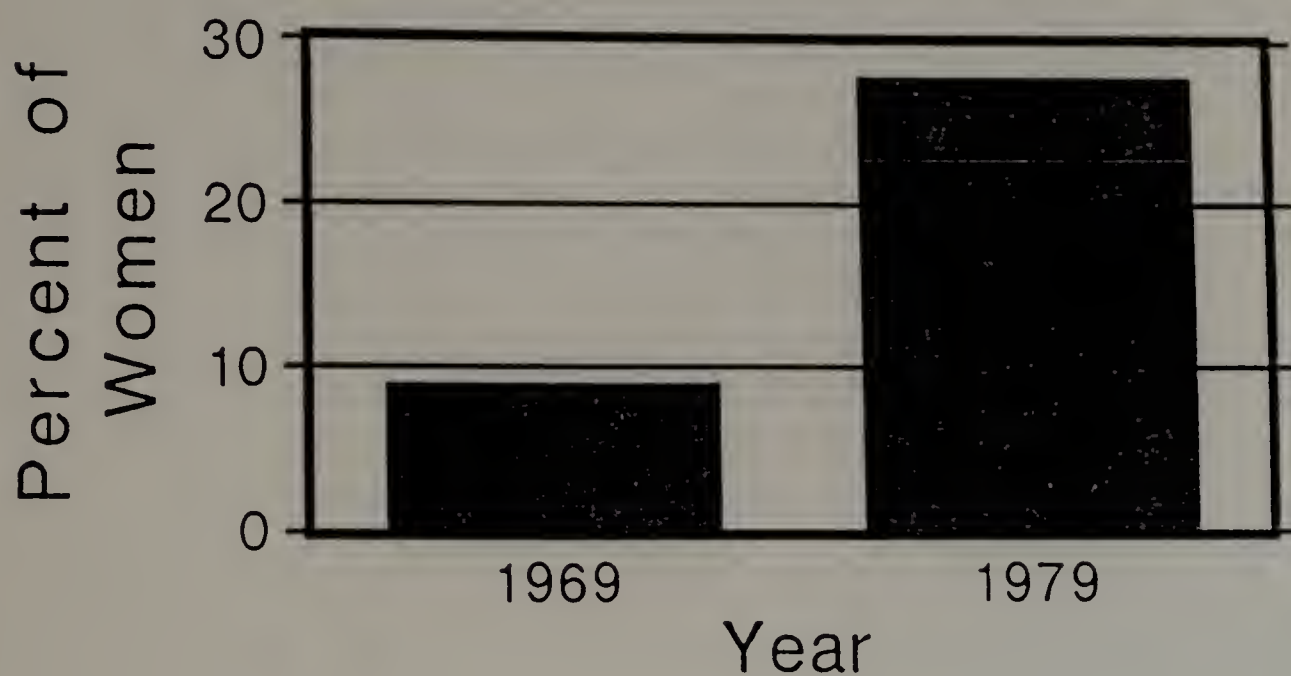


Figure 1
R.N. VACANCY RATE



LAW SCHOOL ENROLLMENT



MEDICAL SCHOOL

Figure 2

OTHER CAREER OPTIONS

school female students and female law school enrollment increases (Aiken, 1981). Job dissatisfaction in nursing stems from several factors, among them, low salaries, high stress, lack of longevity rewards, inflexible time scheduling, insufficient autonomy, lack of respect, performance of menial task, lack of personal job satisfaction and the feeling that no one cares (Roedel and Nystrom, 1988).

It appears that it may be easier for health care administrators and nurse leaders to come to terms with the more tangible aspects of nurse dissatisfaction (salaries, scheduling, tasks, etc.), however, the less tangible issues of professionalism and professional practice may be as significant as the more tangible elements. Nursing role concepts, particularly in the areas of professionalism, autonomy, and collaborative practice, which are vital to job satisfaction among professionals, have been overshadowed by issues of salaries and scheduling (Quirk, 1984). A study by the American Hospital Association in 1981, sponsored by the National Commission on Nursing, disclosed that salary was the subject raised most often in all regions of the country as a leading factor

contributing to the nursing shortage. Other issues that cut across regional boundaries were flexible scheduling, nurse/physician relationships, the status and role of the nurse, and nursing roles in decision making. The study, which was reported as an editorial in the American Journal of Nursing ("Funding Cuts," 1988) summarized that nurses were dropping out or changing jobs because they have reason to see themselves as underpaid and undervalued. If the professional issues that constitute nurses images of themselves cannot be resolved and professional respect and self esteem promoted, financial rewards and scheduling alternatives will have little influence on the long term problem related to the shortage of nurses. Dr. Hans Mauksch (1989), adjunct lecturer in sociology and an emeritus professor at the University of Missouri, recently stated that the nursing shortage may be due, at least in part, to some of the less satisfactory by-products of the physician-nurse relationships.

Problem Statement

The relationship between nurse-physician collaborative practice and nurse satisfaction in the

tertiary hospital setting is not known. Also unknown is the relative degree of stress associated with the nurse-physician collaborative practice environment in that same setting. Although studies on the effects of physician-patient and nurse-patient interactions have been reported frequently in the literature, few studies have examined physician-nurse relationships and their impact on patient care (Weiss and Davis, 1985). Even fewer studies have examined the impact that physician-nurse relationships might have on job stress and nurse satisfaction, particularly on how that satisfaction might affect the recruitment and retention of registered nurses in a profession seriously threatened by a critical shortage of nurses.

Purpose

The primary purpose of this study was to determine if a relationship exists between the frequency that nurses and physicians believe they practice collaboratively and the frequency that nurses report job stress related to variables surrounding conflict with physicians. The study also compared nurse and physician responses to questions dealing with acceptance of a definition of collaborative

practice, satisfaction with the degree of collaboration that is present in the test facility, and the significance of nurse/physician collaboration to the recruitment and retention of nurses.

Research Questions

1. Does a relationship exist between the perceptions of nurses surrounding nurse-physician collaborative practice and the degree of stress defined by nurses in clinical situations?
2. Does a relationship exist between the frequency of collaboration and the stress reported by nurses?
3. What is the comparative relationship between the satisfaction expressed by nurses and by physicians relative to the degree that collaborative practice exists between both groups?
4. What is the relationship between the degree of satisfaction expressed with the existence of collaborative practice and the significance of stress reported by nurses.
5. To what extent do nurses and physicians believe that collaborative practice is a significant variable in the recruitment and retention of nurses?

The subjects of this study were selected via quota sampling and consisted of both registered nurses and physicians employed at a major teaching hospital. Subjects include nurses (staff and managers) from selected inpatient and specialty areas and physicians (attendings) from the major clinical medical and surgical services.

Definition of Terms

Nurse - the generic term used to describe the nurse participants in this study. This includes staff nurses, nurse clinicians, clinical nurse specialists and nurse managers all licensed to practice as such by the Board of Registration in Nursing.

Physician - the generic term used to describe the physician participants in this study. This includes staff attendings, physician chiefs and unit directors all licensed to practice as such by the Board of Registration in Medicine.

Collaborative Practice - a jointly determined relationship between the nurses and the physicians working together in practice. The purpose of practice is to integrate their regimen into a single comprehensive approach to their patients needs.

Collaborative Practice Behaviors - those interactions between nurse and physician that enable the knowledge and skills of both professionals to synergistically influence the patient care being provided.

Nurse Attrition - the gradual process whereby nurses leave the nursing profession.

Nurse Autonomy - the right of the nurse to govern himself/herself according to a specific body of knowledge which is distinct from other disciplines.

Stress - the individual physical and/or emotional pressure associated with a specific issue and/or task.

Satisfaction - the degrees of individual contentment related to a specific issue and/or task.

Recruitment - to increase, strengthen and/or maintain numbers by attracting students into the nursing profession.

Retention - the act of keeping nurses in active employment as Registered Nurses.

Professionalism - the status associated with a vocation or occupation requiring advanced training and usually involving mental rather than manual work.

Burnout - is a experience that involves feelings, attitudes, motives and expectations often leading to negative consequences such as withdrawal from a particular situation or from the workplace.

Turnover - the number of nurses hired to replace those who have left during a given period of time.

Turnover Rate - the ratio of turnover to the average number of workers employed.

HMO (Health Maintenance Organization) - an alternative to traditional third party health insurers.

PPS (Prospective Payment System) - a practice whereby health care facilities are paid a predetermined amount of money for services provided to a patient with a specific medical diagnosis.

CHAPTER II

REVIEW OF THE LITERATURE

Overview

The review of literature includes definitions of terms and a review of the current literature. The literature review has been divided into four areas: (a) the nursing shortage, (b) job satisfaction, (c) job stress, and (d) collaborative practice.

The Nursing Shortage

[The shortage of nurses in the United States has reached what some health care officials are calling epidemic proportions, and the accelerating attrition rate in nursing is creating a severe nursing shortage (Manthey, 1988). The rapid drop in Registered Nurses vacancy rates induced by the severe economic recession and the large wage increases of 1980-81 led many to believe that the supply and demand for RNs in 1983 was essentially in balance (Aiken, 1983). Hospital RN vacancy rates remained below eight percent from 1981 through the first half of 1986; but, by the end of 1986, vacancy rates had suddenly jumped to 13.6 percent. Two-thirds of the hospitals surveyed by the American Hospital Association in December, 1986,

reported that it took more than 60 days to fill medical, surgical, emergency and psychiatric nursing positions. Figure 3, page 13 depicts hospital difficulty in recruiting RNs (Aiken, 1981). Ninety percent reported that it took at least 60 days to recruit intensive care nurses. Because large hospitals have been acutely affected and because shortages are occurring in all parts of the country, nationally prominent observers have predicted that the shortage will become more severe than past RN shortages (Richman, 1987). Figure 4, page 15, represents the projected Supply verses Demand for RNs in 1990 and 2000 (Aiken, 1981).

In 1983, the Institute of Medicine of the National Academy of Sciences concluded that the demand and supply of nurses were in balance and were expected to remain so for the rest of the decade. This seemed to be the case until mid-1986 when new claims of a nursing shortage first emerged ("RN Shortage," 1986). In February 1987, the American Hospital Association (AHA) sounded the alarm by disclosing that for the week of December 1, 1986, 24 percent of 932 hospitals responding to its national survey reported (RN)

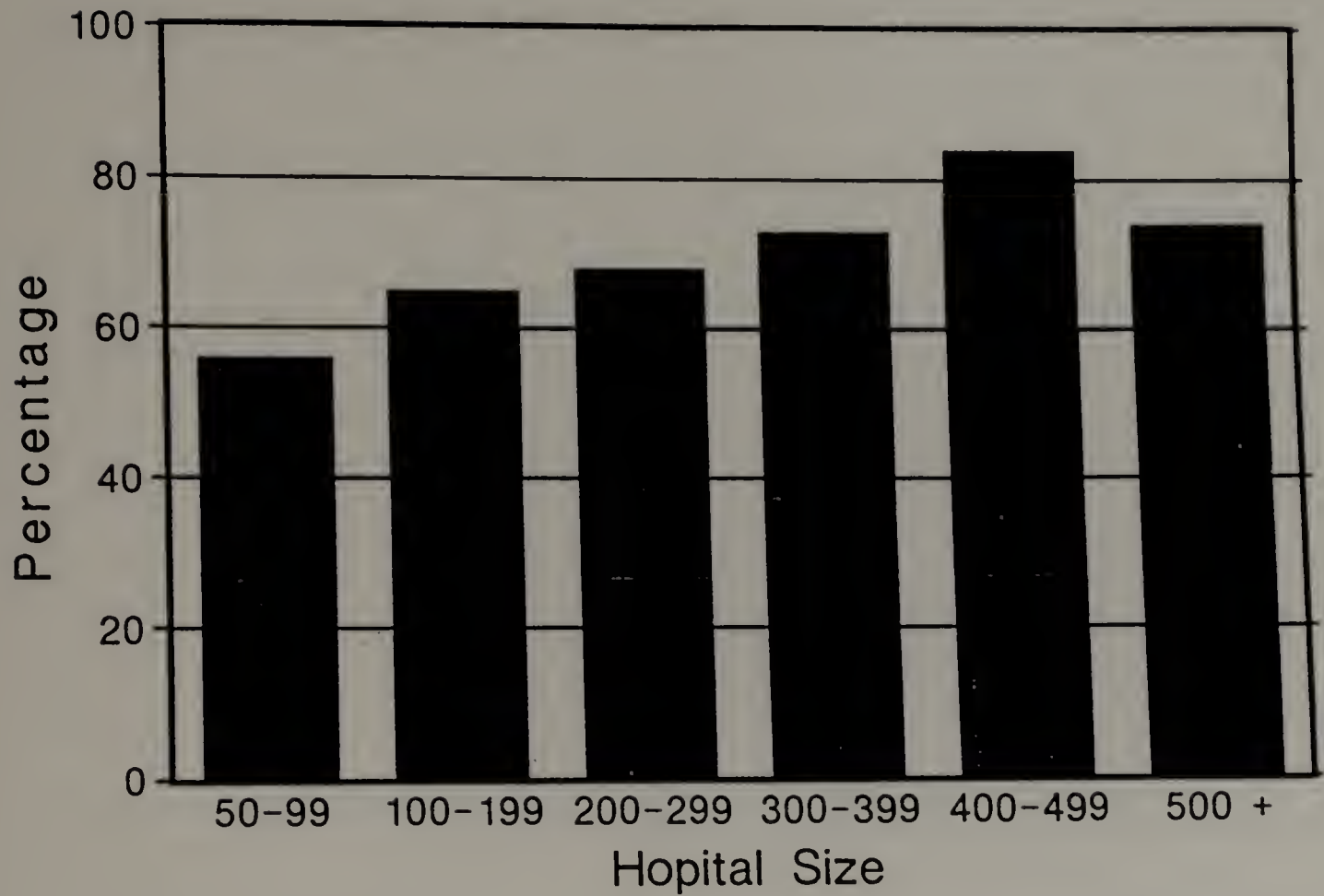


Figure 3
R.N. RECRUITMENT
DIFFICULTIES

vacancy rates (budgeted but unfilled positions for which hospitals are actively recruiting) of 15 percent or greater. Registered nurse vacancy rates were even higher in hospitals with less than 50 beds, 36 percent of this group reported vacancies totaling more than twenty percent of their RN staff on average for the preceding four years (Buerhaus, 1987). Throughout the popular health literature, a frequently expressed fear is that the rise in RN vacancies will become more widespread and severe and last well into the future. Figure 4, page 15 reflects the projected nursing supply and demand. Between 1980 and 1987 the number of RNs employed by American hospitals rose 21 percent, from 622,000 to 758,000 FTEs (AHA, 1988). At the same time, the number of all other hospital employees fell. For example, hospitals cut licensed practical nurses from 228,000 to 170,000 FTEs (AHA, 1988).

Four important trends are fueling the demand for RNs: changes in medical practice (new diagnostic and treatment techniques); shifts in patient characteristics (increasing population over age 65); professional objectives (move toward all RN staff as a result of increasing patient acuity and growing use of

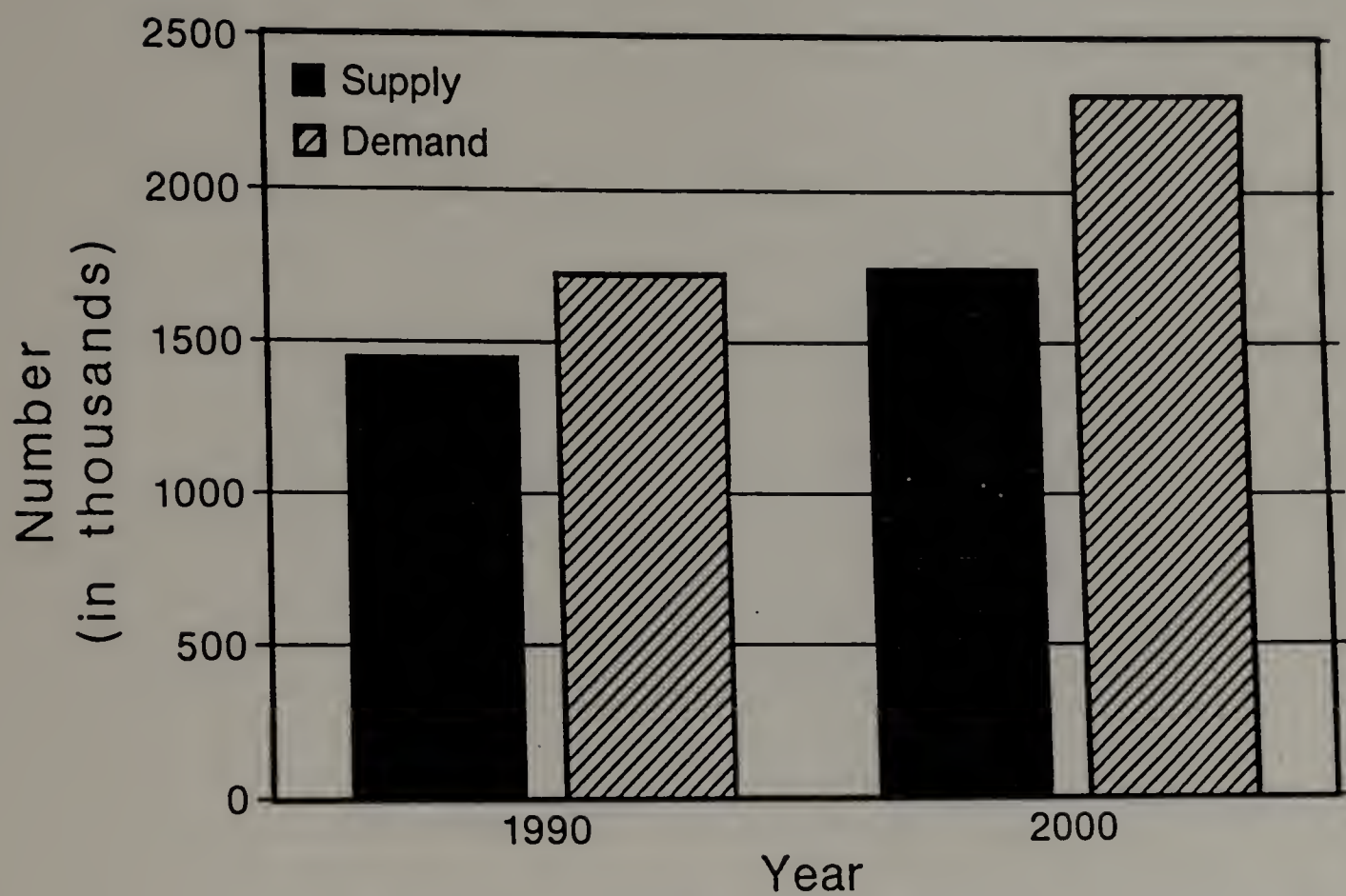


Figure 4
SUPPLY VS DEMAND
NURSES

complex technology); and economic incentives cost-conscious managers have responded to changes in the reimbursement system by cutting back on all personnel except nurses, who are relatively inexpensive and versatile workers (Aiken and Mullinix, 1987). The Massachusetts Hospital Association estimates that by the end of 1990 Massachusetts will experience a nursing shortage of between 35,000 to 50,000 Registered Nurses (MHA, 1987). More than ten percent of all positions in the state are vacant, with a national average of approximately 17 percent (AHA, 1987). More than 87 percent of all hospitals in Massachusetts are experiencing a shortage of nurses, or are having difficulty recruiting RNS (MHA, 1987).

The attrition rate in nursing has been primarily due to two factors: different types of jobs available to women, and dissatisfaction and disillusionment with nursing (Lemler and Leach, 1986). There are some research findings which report that the work environment is a primary reason for attrition among nurses (Hinshaw, Smeltzer, Atwood, 1987). Other factors such as a fear of AIDS and the rapid growth of ambulatory and home care agencies are also

contributing to the nursing shortage in hospitals (Buerhaus, 1987). Buerhaus states that as prospective nursing students realize that a nursing career will increase their risk of exposure to AIDS infected individuals, blood products and needles, many individuals may reconsider the attractiveness of nursing and other health care professions in general. The growth of the number of new nurses is not keeping step with the current demand. Colleges and universities are closing their nursing programs as a result of declining enrollment. Figure 5, page 18, represents Nursing School Enrollment between 1975 and 1985 (AHA, 1988). The "baby bust" is one reason for the falloff of nursing graduates and students. The number of high school graduates and students reached 3.2 million in 1977. In 1986, that total fell to 2.7 million. In 1992, the total number of high school graduates is expected to decline to 2.4 million (AHA, 1987).

Tremendous growth of employment opportunities in ambulatory and home health care agencies has resulted in competition with hospitals for RNs as well. Between 1980 and 1984, nurse employment in physician

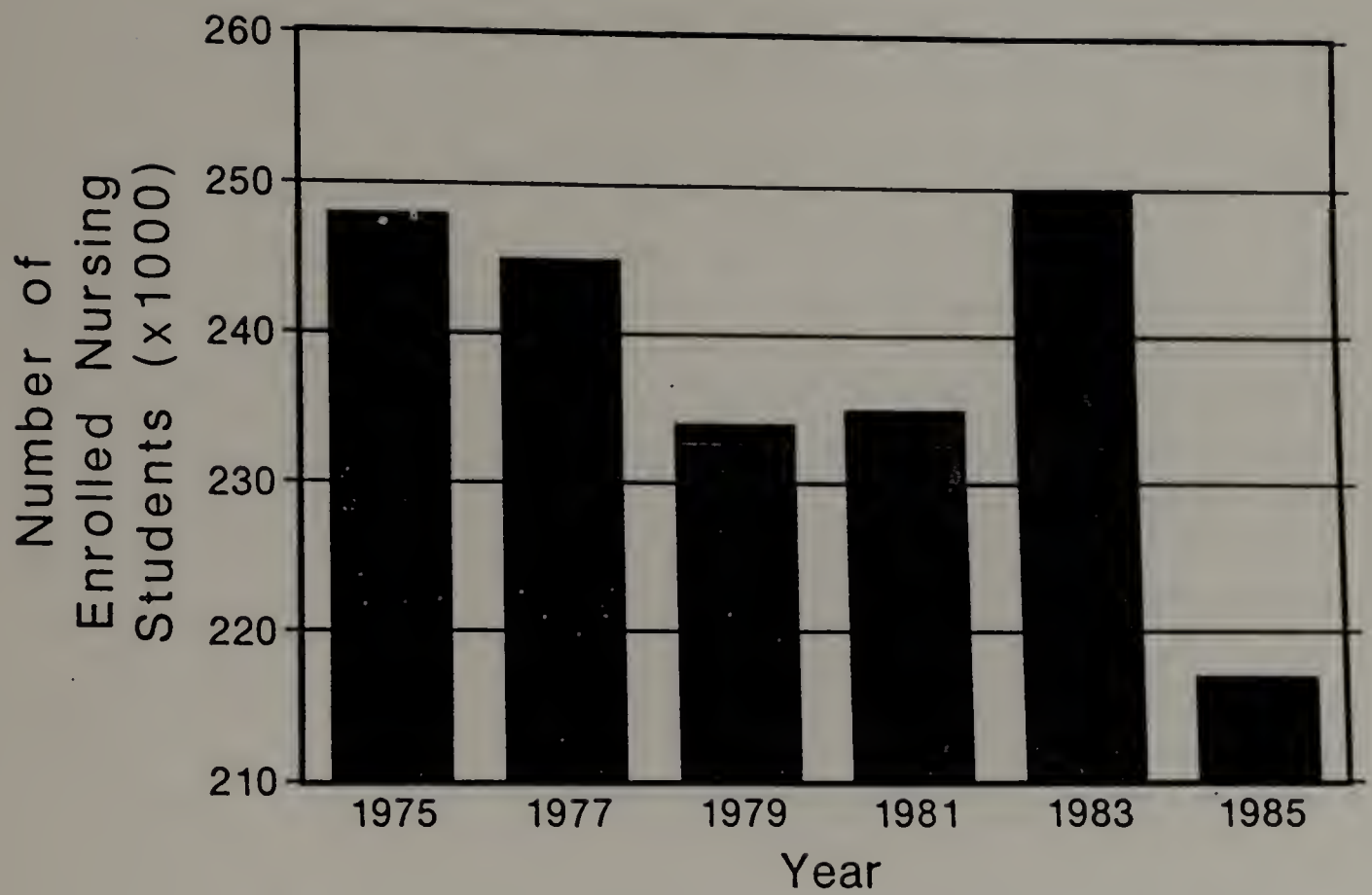


Figure 5
NURSING SCHOOL ENROLLMENT

offices, health care maintenance organizations (HMOs) and ambulatory care centers grew 35 percent and in the public and community health sector by 22 percent (AHA, 1987). The projected growth in quality assurance, utilization review and risk management activities promises to provide even more alternatives for RN employment. The greater flexibility and choice of hours offered by these alternative settings will make it increasingly difficult for hospitals to attract RNs.

Nurse entrepreneurs will also decrease the supply of RNs to hospitals. Approximately 20,000 RNs have started small firms providing autonomous and innovative forms of primary health care and home nursing services. Because many more nurse-owned and operated firms are expected in the future, they will add to the growing numbers of alternative providers competing with hospitals for available RNs.

Job Satisfaction

The lack of job satisfaction in nursing stems from several factors; low salaries, high stress, lack of longevity rewards, inflexible time scheduling, insufficient autonomy, lack of respect, the

performance of menial task, lack of personal job satisfaction, and the feeling that no one cares (Roedel, Nystrom, 1988). Although job satisfaction has been one of the most frequently studied phenomenon in the fields of industrial and organizational psychology for several decades, its applicability to the problems of recruitment and retention in nursing has been understated and understudied.

Job dissatisfaction has been correlated with nursing turnover (Babley, 1986) and high nursing staff turnover rates can be dysfunctional in the acute care setting (Stahl, 1985). Turnover rates have been cited to be as high as 67 percent overall with rates in critical care areas to be as high as 134 percent per year (Godfrey, 1975). Mann and Jefferson (1988) looked at factors contributing to nursing turnover. This study was conducted in a 255-bed, California County Hospital that serves as a teaching institution for several university medical schools. For purposes of the study a survey questionnaire was developed and distributed to 47 nurses. The respondents were divided into three groups: 15 non-supervisory nurses who had quit the Medical Intensive Care Unit (MICU),

22 non-supervisory nurses working in the MICU at the time of the study, and ten registered nurses who were former or current supervisors in the MICU. The questionnaire asked each respondent to rank the relative importance of twenty reasons for actually or potentially quitting work. Those reasons identified on the tool were derived from records of termination interviews conducted with nurses who had terminated employment at the hospital over the previous five years.

The ranked results of those variables identified as contributing to nurse turnover were:

- . Understaffing
- . Job too Stressful
- . Poor Scheduling
- . Non-Supportive Supervisors
- . Change in Career Goals
- . Family Obligations
- . Not Appreciated by Administration
- . Supervisor, Lack of Leadership
- . Supervisor, Lack of Managerial Skills
- . Inadequate Supervision
- . Plans for Future Education

- . Nature of Patients' Illness
- . Lack of Promotional Growth
- . Lack of Promotional Opportunity
- . Wages too Low
- . Frequent Unexpected Assignments
- . Problems with Co-Workers
- . Supervision too Rigid
- . Inadequate Orientation
- . Discrimination, Sexual or Racial

Although the sample size is limited, the results of the study do support the notion that factors contributing to job dissatisfaction can be correlated to nursing turnover.

Results from a survey done in 1987 indicate that eight out of ten Registered Nurses said that they plan to stay in nursing - at least for the next year (Huey, Haretey, 1988). The study reported that many of these nurses say they are at the edge, staying because they feel trapped, but unhappy in nursing and certainly not about to encourage anyone else to enter the profession.

Findings from this study varied only slightly with results of a 1980 study on job satisfaction that

was conducted by Mabel Wandelt (1986). The 1980 study indicated that salary was the number one issue of concern with the nurse respondents.

In the more recent study, the ten most important factors that nurses identified as leading to increased job satisfaction were:

1. Competent RN staff
 2. Allowed to exercise nursing judgement for patient care
 3. Adequate RN - patient ratio
 4. Support from nurse administrators
 5. Help available when a patient needs extra care
 6. Sense of being an important member of the health care team
 7. Positive interactions with other nurses
 8. Adequate salary
 9. Desired work schedules
 10. Up to-date nursing and medical procedures
- (Huey and Haretey, 1988)

Luz S. Porter (1985) has written extensively in the literature regarding nursing issues and has recently stated that "at no point in history have

political and economic conditions so critically threatened the survival of professional nurses as individuals and the nursing profession as a discipline."

She identifies the major problems and issues to be resolved as:

1. The ongoing economic inequities for nurses in the health care system (women receive \$0.62 for ever \$1.00 a man receives; nursing is 97% female; today nurses receive less than 20% of physician salaries).
2. The widespread dissatisfaction with working conditions resulting in recruitment and retention problems.
3. The ambiguous public image of nursing as a profession.
4. The difficulty in fostering nursing roles with responsibility, autonomy, and authority.
5. The need to provide nursing education which adequately prepares the nurse for professional practice at different levels.

In a readers' poll report conducted by Nursing Life in June, 1987, one thousand nurses were asked if they would encourage their children to become a nurse. Seventy-seven percent of the respondents said that they would not encourage either a son or daughter to become a nurse (Tobin, 1987). The dissatisfying factors that were identified in this study included: (1) poor pay; (2) poor hours; (3) overwork and high stress; (4) no respect, no thanks; (5) infrequent and unfair promotions; (6) an educational system that doesn't prepare graduates for the real world; (7) the division among the professional nursing leaders; and (8) a lack of power.

Nursing attrition, as a result of dissatisfaction with the profession, adversely affects both the budget and the delivery of quality patient care. While a certain level of staff turnover is inevitable, the nursing administrator must consider it a key objective to minimize its impact due to: the high cost of recruitment and orientation, the impact that turnover has had relative to forcing bed closings, and the quality of patient care which is negatively affected by the loss of experienced nurses (Seybolt, 1986).

Recruiting and orienting a professional nurse to an institution may range from \$3,000 to \$5,000 (Hinshaw, Smeltzer, Atwood, 1987). In one institution, according to Seybolt, the cost of recruiting and orienting an intensive care nurse is documented to be between \$7,000 - \$8,000, recruitment expense plus four months of orientation which is considered non-productive time. In addition to the cost associated with recruitment and orientation many administrators believe that it takes an average of one year's experience for a new nurse to become fully effective, thus adding significantly to non-productive time considerations. Another issue reported in the literature relative to turnover is one of tenure and mentorship. As less than one half of nurses have more than five years of tenure in a single hospital, there is a shortage of "mentors" to train and motivate other nurses during the critical early career period (Friss, 1988). Thus, the lack of enthusiastic mentors encourages career incumbents to leave and high potential practitioners to choose other careers. This factor reinforces a downward cycle of occupational attractiveness. In terms of quality care, Friss

states that research findings suggest that a dissatisfied nurse negatively influences patient satisfaction with care and their subsequent compliance with treatment. The Institute of Medicine reported in 1988 that the satisfaction of the nursing staff is the strongest determinant of aggregate client satisfaction. Client satisfaction, in turn, predicts the rate of subsequent compliance with medical regime.

In the future, hospitals will have strong economic incentives to continue the low annual wage increases that began in 1983 with the initiation of Medicare PPS. Constraining the growth of RN wages will help lower hospitals' operating costs which in turn will increase their opportunity to earn profits under PPS (Buerhaus, 1987). Moreover, minimizing costs is essential for hospitals in order to be priced competitively and thereby do business with HMOs and other prudent purchasers of hospital services. Buerhaus states that despite these economic incentives to lower costs, hospitals face the overriding necessity to treat enough patients on a daily basis to assure their financial viability, a concern that is growing as competition among hospitals intensifies.

Because an increase in RN vacancies could force hospital administrators to restrict admissions and because past experience demonstrated that raising wages is the quickest way to reduce hospital RN vacancies, hospitals can be expected to soon raise RN wages substantially. Fewer RN vacancies will allow hospitals to admit more patients and increase their chances for financial viability.

Job Stress

Recently, considerable publicity has focused on independent nurse practitioners and clinical nurse specialists, especially those functioning in non-institutional settings. These evolutions in the nursing role clearly represent an increased challenge and stimulation to professional nurses (Devereux, 1981). However, far more nurses function in the role of hospital staff nurse, which has received minimal attention. Figure 6, page 29, depicts the percentage of nurses employed in various work facilities (AHA, 1988). In 1972, hospitals employed 50 nurses for every 100 patients (AHA, 1988). By 1986 the ratio had increased to 91 nurses for every 100 patients. Figure 7, page 30, reflects Hospital RN/Patient Ratios (AHA, 1988).

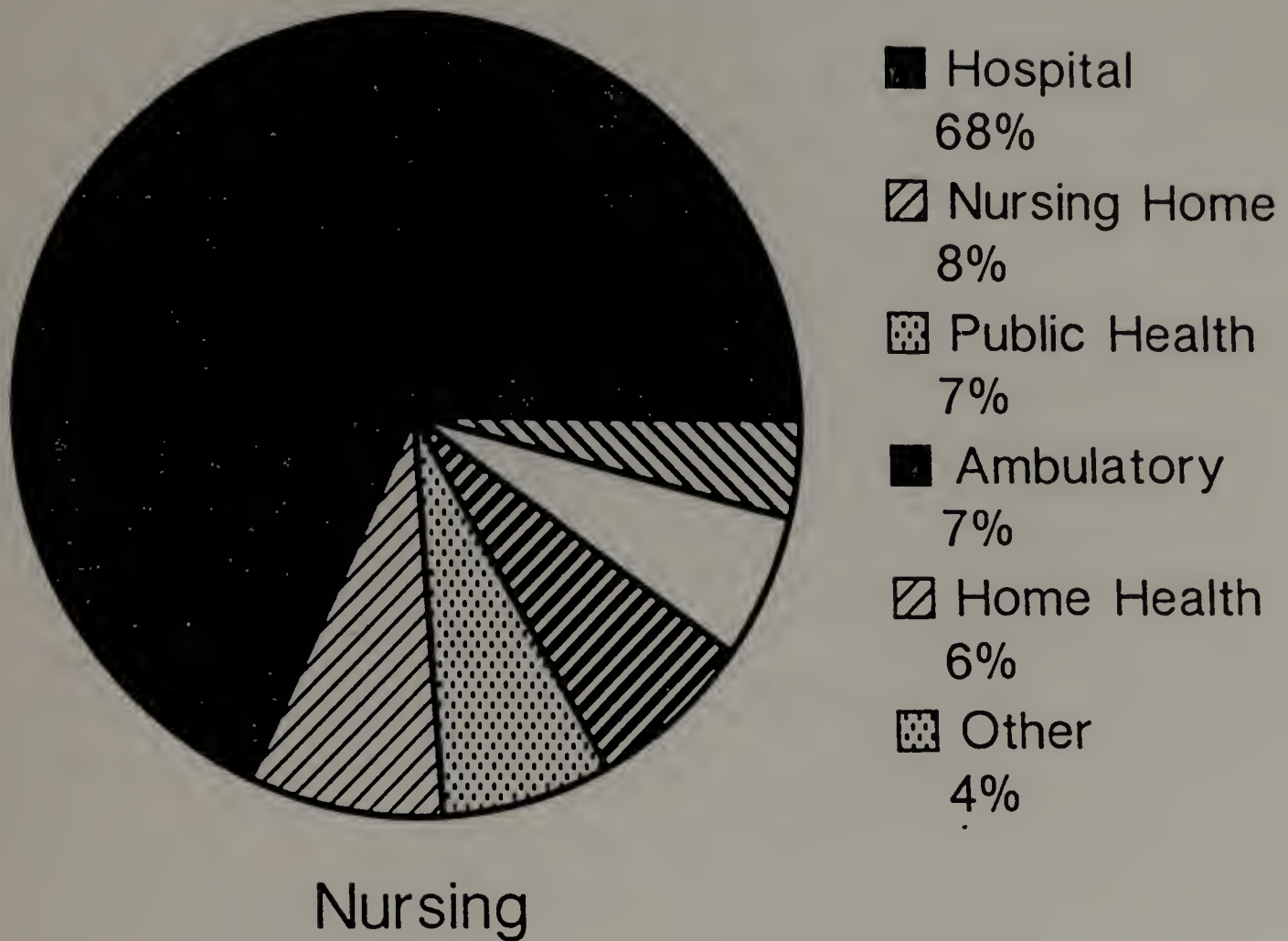


Figure 6
WORK FACILITY
TYPE OF

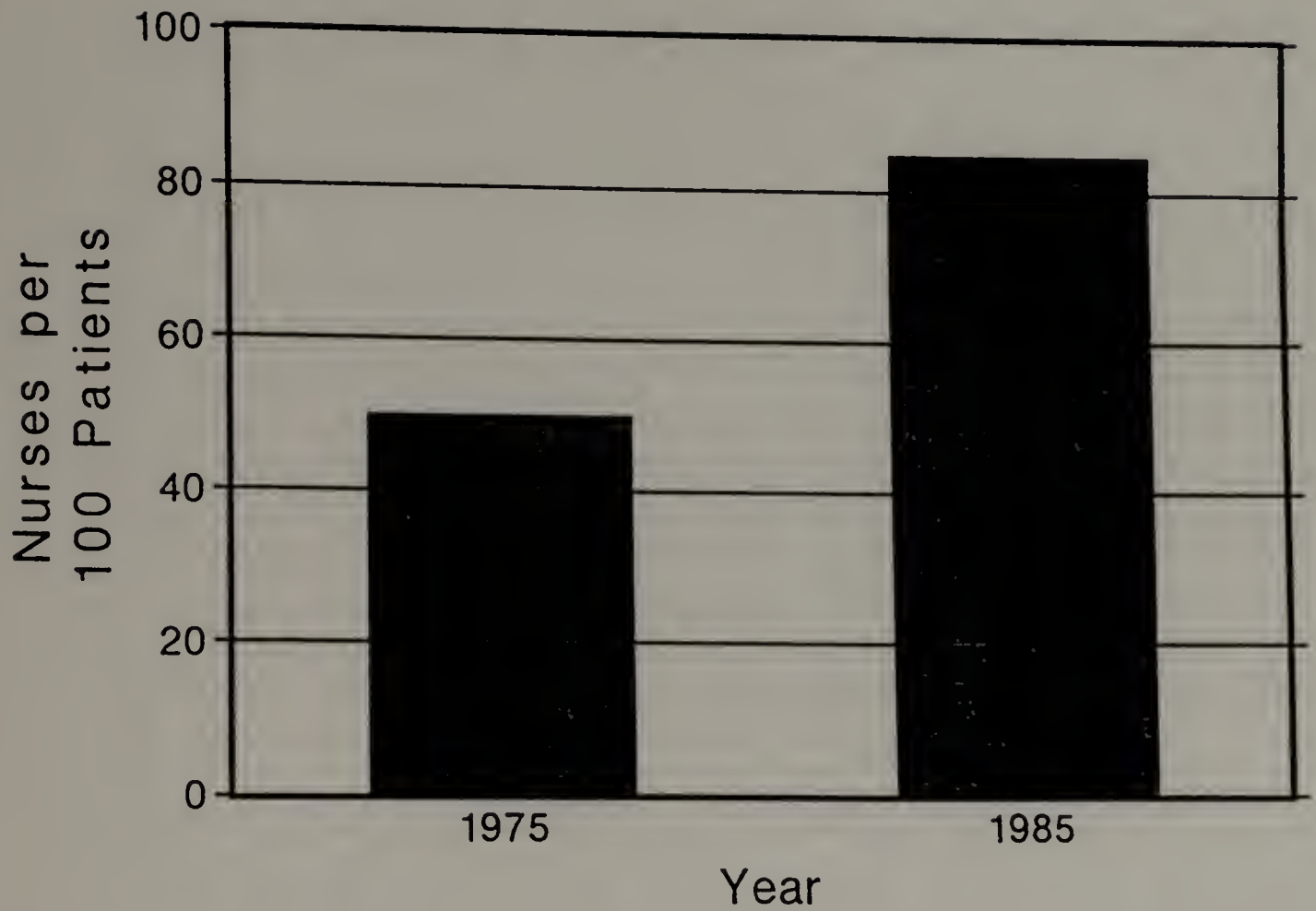


Figure 7
HOSPITAL RN / PATIENT RATIOS

This increase in RN to patient ratio is because patients in hospitals are usually sicker during their stay. Insurance, medicare and other reimbursement systems, in an attempt to reduce costs, began to limit the number of days that they will reimburse for any particular hospital stay. This translates to a population of patients who are hospitalized when their patient care needs are heaviest, thus warranting the knowledge and skill of the Registered Nurse. Between 1980 and 1987, while the nation was closing about 30,000 short-term, general hospital beds, it was converting nearly 20,000 beds to intensive care (Minnick, Roberts, Curran and Ginzberg, 1989). In 1987, the 90,000 intensive care beds constituted almost ten percent of all beds (AHA, 1988). Because ICUs employ four to six times as many nurses per bed as general units, the demand for Registered Nurses is at an all time high. Minnick et al (1989) reports that 68 percent of active nurses serve in traditional roles within institutions and these nurses are experiencing burnout in large numbers. Their complaints range from excess paperwork and clerical tasks that keep them away from patients to restrictive

policies that allow them to deliver only a mundane, routine level of patient care. Increasing attention has been focused on investigating job stress and its consequences among nurses working in hospitals (Hinshaw and Atwood, 1987). Investigators have documented a number of major job stressors that staff nurses typically encounter, including death and dying, emotional demands of patients and their families, inadequate staffing and work overload, and conflicts with administrators, physicians, and other nurses (Gray-Toft and Anderson, 1981). The potentially negative consequence of chronic exposure to such job stressors which has received increasing attention is burnout. In recent research conducted among hospital staff nurses, symptoms of burnout were found to be significantly associated with perceptions of stressful and unrewarding working conditions, as well as with a variety of other negative sequelae, including tardiness, absenteeism, use of tranquilizing drugs, physical illness and withdrawal from others (Chiriboga and Bailey, 1986; Pines and Kanner, 1982). Hinshaw et al. (1987) state that job stress is the

strongest predictor of professional/occupational job dissatisfaction.

Many nurses, especially younger ones, express discontent with the lack of professional respect that they receive from other health care professionals, primarily physicians, and the lack of real decision making in patient management (Devereux, 1981). Many nurses believe that the nursing profession has the image of a low-status occupation with work conditions and rewards that are inconsistent with the expectations associated with professional degrees (Felton 1986). Many nurses are leaving hospitals to pursue other avenues of nursing, and others are leaving the profession completely. As long as hospitals are filled with sick people, sufficient numbers of hospital nurses are critically important to the provision of health care. Devereux (1981) insists that it is inappropriate to allow hospital nursing to become only a training ground for the young and energetic or a dumping ground for the complacent or incompetent.

It is becoming imperative to foster and to facilitate a more conducive environment for the

professional nurse to practice in (Singleton and Nail, 1984). A satisfactory work environment has been identified as one which fosters a sense of freedom, challenge, a sense of belonging, and a chance for self-fulfillment (Yankilovich, 1979). Yankilovich states that if these expectations are not met, people will resort to one of the following: (1) withdrawal from emotional involvement in the job; (2) insistence upon steady increases in pay and fringe benefits in order to compensate for the job's lack of appeal; (3) termination and the seeking of other employment; and/or (4) dropping out of the work force all together.

Strengthening and supporting physician-nurse relationships has long been perceived as conducive to creating an environment that promotes high quality care (Miller, 1987). A study done by Knaus, Draper, Wagner and Zimmerman (1986) concluded that the quality of the relationship between physicians and nurses in the Intensive Care Unit is the vital element in lowering patient mortality rates.

In the study conducted by Knaus et al (1986), the researchers concluded that the interaction and coord-

ination of the nurse-physician staff significantly influenced the effectiveness of care, as shown in the decreased ratio of observed to expected patient mortality. Increased collaboration leads to efficient and effective care, while decreased collaboration leads to inefficiency and ineffectiveness (Baggs and Schmitt, 1988). In addition to directly affecting the quality of care, a more collaborative environment and the operationalization of a physician/nurse collaborative practice model is a variable that could positively affect individual nurse satisfaction.

The literature reports that there is significant dissatisfaction and stress associated with the relationship between physicians and nurses in the practice environment of the hospital (Kalisch and Kalisch, 1977). Many nurses and physicians in hospital settings view each other with mistrust and animosity (Devereux, 1981). A related example of this is reported by Holkelman (1975) who identifies a basic dishonesty in the nurse-physician relationship. This dishonesty results in game playing which permits the nurse to share in medical decisions without seeming to. By playing the game, nurses suppress their

initiative and miss the opportunity to grow intellectually; the physician deceives her/himself; and both are dishonest. Much of the nursing dissatisfaction is related to how nurses perceive they are valued as professionals by physician staff. Historically, nursing has gone through three ideologies - "Nightingalism" where the nurse is the handmaiden of the physician, paternalism where the hospital plays the role of father or "big daddy," and professional collectivism where nurses band together to determine their own working conditions and the quality of nursing they will practice. Even as this last is evolving there are physicians who still view nursing as an extension of medicine and not as a discipline in and of itself. In a study of 536 (Lee, 1979) physicians who took part in a national survey regarding their perception of nurses and the nursing profession the following results were reported:

- . 74.1 percent of the physicians surveyed viewed nurses as assistants while 16.7 percent viewed them as colleagues.
- . 78.3 percent of the physicians surveyed felt nurses had enough authority while 12.6

percent said not enough and 9.1 percent said more than enough.

- . 57.9 percent of the physicians surveyed felt that nurses were paid enough while 40.6 percent felt that nurses were underpaid and 1.5 percent felt nurses were overpaid.

Other comments received from physician responders were that nurses are medical assistants and semi-professionals; the nursing profession is ancillary, supportive, and auxiliary in the field of medical care. Some physicians who did express some support for nursing presented a vague, idealistic notion of it such as "a profession of dedicated people who put service above self," or "an honorable profession of dedicated women." Others who did recognize nursing as a profession made it clear that they perceived it as a subservient one: "A nurse is a professional who has been trained to provide care to patients on orders from physicians." Of the few physicians who characterized nursing as having its own standards, skills, procedures and body of knowledge, virtually none perceived of nursing care as something distinct from medical care.

The nurturing of a collaborative practice environment could legitimize the duties and obligations of the professional nursing role and provide an environment in which nurses have increased job satisfaction with concomitant employee retention (England, 1986). For the nurse, the experience of a collaborative relationship with physicians may mean a coming into his/her own (Mauksch, 1981). The nurse may find new fulfillment in his/her practice, in his/her ability to achieve competence in the application of the nursing process, and in being able to evaluate its efficaciousness. Mauksch also states that the nurse may find that collaboration with physician colleagues is personally rewarding and professionally reaffirming.

Collaborative Practice

Throughout nursing's history, interest has been expressed in developing collaborative relationships between physicians and nurses (England, 1986). Today, high technology, increasing specialization, and dwindling dollars for health care have forced rapid and sometimes painful changes in health care institutions. England further states the need for

open communication, coordination and collaborative decision making among professionals has become a must. She states that inefficiency and duplication of effort can no longer be afforded in increasingly competitive and cost conscious health care delivery systems.

In the 1960's, leaders in organized medicine and nursing began to state publicly that the growing discord between nurses and doctors needed to be settled (Devereux, 1981). The hostility and lack of communication between the two professions was straining further a troubled health care system. The need for collaboration, realigned roles, and team effort was discussed at conferences and was documented in the literature. As a result of these discussions, the National Joint Practice Commission was established in 1971.

The commission was originally made up of eight nurses and eight physicians appointed by the ANA (American Nurses Association) and the AMA (American Medical Association). Between 1971 and 1977 the commission made several statements about nurse-physician practice and interaction and, in 1977, they published Together, a casebook of nurse-physician

joint practices in primary care (Devereux, 1981). In 1977 the National Joint Practice Commission hospital project was initiated in order to focus on the working relationship of nurses and physicians in the hospital setting. Four hospitals were selected to participate in the demonstration project, with selection criteria allowing for variety in geographic location and organizational style. The following hospitals took part:

1. Eskaton American River Healthcare Center in Carmichale, California (large community hospital);
2. Hillcrest Medical Center in Tulsa, Oklahoma (community hospital with teaching staff);
3. York Hospital in York, Maine (small, private hospital); and
4. State University Hospital - Downstate Medical Center in Brooklyn, New York (medical center hospital).

Each hospital selected one unit on which to initiate the project at Downstate, a 37-bed medical unit with a high risk percentage of oncology; at two others, general medical-surgical floors; at a fourth, gynecology and high risk pregnancy.

The commission selected five clinical elements to be introduced simultaneously on the project units;

each was intended to support and reinforce a collaborative and collegial relationship between doctors and nurses.

The project intended to show that through successful implementation of these five elements the working relationship of nurses and doctors could be improved and, in the process, patient care would also improve. The five elements were: primary nursing, the integrated patient record, encouragement of nurses' decision making, a joint practice committee and joint care review.

The goals of the collaborative practice model were:

- . For the nurse: increased job satisfaction through changes in role definition and decision making process.
- . For the physician: the need for less supervision and the development of better coordination with other professionals.
- . For the institution: greater patient satisfaction and better use of professional staff.

- . For the patient: more personalized care with less fragmentation.

The project was established as a demonstration model, not as a research project (Devereux, 1981). Objective research tools and controls were not used. The NJPC researchers provided little theoretical justification for their choices of essential factors and ways to implement them. The reported data are sketchy and anecdotal, but most physicians and nurses involved in the model units felt that there were some benefits related to the effort (England, 1986). These included: (1) patients reported increased satisfaction with the care they received; (2) nurses reported increased job satisfaction as they developed collegial relationships with physicians; (3) physicians felt that patient satisfaction had improved and patients were better and more responsibly cared for; and (4) hospital administrators identified a vast improvement in the quality of patient care, an increase in patient and professional staff satisfaction, lowered indirect personnel costs, and ultimately lowered liability.

To collaborate is "to work together, especially in a joint intellectual effort." (Baggs and Schmitt, 1988).

A second meaning, "to cooperate treasonably, as with an enemy occupying one's country," indicates that the term has negative as well as positive connotations (Morris, 1983). A number of nursing authors use the term "collaboration" as though it needs no definition. (Campbell, 1985, Devereux, 1981). However, the term collaboration does need definition and clarification in order to capture the crucial elements of the nurse-physician practice relationship (Baggs and Schmitt, 1988).

Collaboration has been defined by a number of nurse authors, many of them referring to interdisciplinary collaboration. The critical attributes for collaboration include sharing in planning, making decisions, solving problems, setting goals and assuming responsibility; working together cooperatively; coordinating; and communication openly (American Association of Critical Care Nurse, 1982; England, 1986). It has been demonstrated that if physicians and nurses work together, other disciplines will also become involved and patient care outcomes will be enhanced. In evaluating the collaborative Practice Project at Hartford Hospital, Koerner (1985)

found improved patient satisfaction and quality of care.

Collaboration requires at least three other concepts: coordination, cooperation and sharing (Baggs and Schmitt, 1988). Lamb and Napadano (1984) make it clear that collaboration is not merely coordination - a summary of individual ideas - but a more sophisticated form of interaction involving the joint formulation of plans. Cooperation, which implies planning and working together in a helpful way, is a key part of collaboration. The absence of sharing in a relationship or partnership is referred to as parallel functioning and does not promote a collaborative environment (Baggs and Schmitt, 1988).

A definition of physician-nurse collaboration is stated in the Summary Report and Recommendations of the National Commission of Nursing, April 1983 as:

...a jointly determined relationship between the nurses and physicians working together in practice. The purpose of practice is to integrate their regimen into a single comprehensive approach to their patients' needs. The practitioners themselves define their roles in consonance with state laws, professional practice acts, policies of the hospital, and the special clinical needs of their particular fields (NCN, 1983).

The definition seems simple enough, but to many of us in the health care community, it may not be so easy to attain. There are some issues that must be addressed and confronted before collaborative practice can be successfully implemented in any health care setting (England, 1986).

Styles (1984) noted that physicians are often threatened by nurses who discuss collaboration. They see the process as an invasion of their territory; physicians who collaborate with nurses are traitors - the second definition of the term. Nurses may also feel threatened by the increased responsibility and accountability crucial to collaboration (England, 1986).

Other negative aspects of collaboration are discussed by England, 1986 who notes that low status collaborators may defer to those of high status. This may lead to conflict between the desire to be accepted and the duty to advocate for the patient (Mailick and Ashley, 1982).

Another factor, which is not generally addressed, is the direct relationship that the development of the collaborative practice model has to the women's

movement (England, 1986). Traditionally, nursing has been predominantly a female profession with the inherent so-called feminine traits of being caring, tender, compassionate, having the presumed intuitive ability to relate to people, to be supportive of their needs and wants, and thus be especially able to nurture others (Hiede, 1973).

Thus, women (nurses) are typically expected to display specific behaviors because of these traits, i.e. be submissive, passive, subjective, and emotional, according to Hiede. The professional image of nursing is usually viewed as less important than that of the physician by both nurses and others, according to Winker and Lee (1982). In a recent study conducted by a task force from a Midwestern teaching hospital, the image of nursing was evaluated from several perspectives. The study was designed to evaluate the public's perception of the image of nursing. Thirty-nine MDs (14 percent), 106 RNs (37 percent) and 138 members of the general public (49 percent) participated in this study.

All respondents were asked: "In one word, define your image of nursing." Responses were divided in

three subgroups, those that presented a positive image of nursing, those that were negative, or those that were indifferent. Analysis of the data revealed that nurses had the lowest percentage of positive responses (72 percent) in comparison to the physicians (100 percent) or the general public (84 percent).

The majority of subjects used the following words to describe nursing: "caring, nurturing, compassionate, warm, empathetic, concerned, sensitive and patient." Twenty-three percent of the physicians labeled nurses as "efficient, competent, professional, responsible, and organized," whereas only 11 percent of the nurses used similar terms to define their profession. Likewise, 23 percent of the physicians defined nurses as "superlative, indispensable, essential, valuable, and admirable," whereas only one nurse used similar terms. Those RNs who gave responses used terms such as "overworked, chaotic, harried, overstressed, moody, underestimated, ignored, underrated, underpaid, disillusioned, indifferent, and oppressed." These results substantiated concern that nurses need to devise ways to improve their own image as a group before they can move to a more professional

position in the health care business (Porter, Porter and Lower, 1989).

Often, defensive behaviors are based upon the status difference between nurses and physicians (Winkles and Lee, 1982). Winkles and Lee also state that nurses frequently view their relationships with physicians as beyond their control. Open disagreement is to be avoided and failure to play the game was seen by nurses to result in immediate loss of communication, inability to establish a working relationship with the doctor and ostracism, as reported in a study conducted by De Young (1971). Nurses appear to have two separate standards for themselves: to think and make self decisions and to please and follow others' decisions. These two are in conflict and are incompatible with each other, and frequently the passive role wins out (Winkles and Lee, 1982).

On the other hand, physicians have predominantly been male with the so called masculine traits of being decisive, able to take initiative, objective, persistent, aggressive, rational, brave, and dominant (Hiede, 1973). Fortunately, although it is a slow

evolution, females and males are increasing their numbers in the medical and nursing professions, respectively. However, because the evolution is slow, many of the former attitudes prevail and there is conflict as nurses and physicians step out of their stereotypical roles, according to Wilma Hiede (1973).

Nurses are attempting to expand their roles through technical skill development, education, and research. Some nurses are threatened by these changes that require the nurse to be more responsible and more accountable for nursing actions and decisions (England, 1986). England says that most nurses view these changes as an extremely positive movement toward the profession becoming a valuable and recognizable contributor to the health care team.

Physicians also have differing viewpoints on the expanding nursing role (Mauksch, 1981). Mauksch states that some continue to view nurses as handmaidens who do not have the knowledge to participate in decision making regarding patient and family issues and are threatened by the nurse assuming what are characterized as "male traits." Mauksch also states that there are nurses who become threatened

when physicians show tenderness, caring, emotion, and may not respect that particular physician over one that is controlling, decisive, and so on. These traditional female-male roles continue to have influence over how nurses and physicians relate in the health care environment. For the physician and the nurse who continue to believe in these philosophies and are threatened by change, collaborative practice is more difficult to obtain.

CHAPTER III

METHODOLOGY

Overview

The purpose of this chapter is to describe the research methodology of the study. This chapter includes the research design, the instrumentation, the procedures, the population, and the procedures for data collection and data analysis.

Design

This study utilized a survey approach in order to: (1) determine if a relationship exists between the perceptions surrounding nurse-physician collaborative practice and the degree of stress defined by nurses in clinical situations; (2) determine if a relationship exists between the amount of collaboration reported by nurses and physicians and the stress reported by nurses; (3) determine the comparative relationship between the satisfaction expressed by nurses and by physicians related to the degree that collaborative practice exists between both groups; (4) determine if a relationship exists between the degree of satisfaction expressed with the existence of collaborative practice and the

significance of stress reported by nurses; and
(5) determine the significance that nurses and
physicians place on collaborative practice as a
variable in the recruitment and retention of nurses.

Setting

The setting was the University of Massachusetts Medical Center, a 380-bed university teaching and tertiary care facility located in central Massachusetts. The respondents (nurses and physicians) were selected based upon their clinical and/or administrative affiliation with a wide variety of patient care units including: the Cardiothoracic Intensive Care Unit and the Cardiothoracic Step Down Unit; the Trauma Intensive Care Unit and the Trauma Step Down Unit; the Coronary Care Unit; the Coronary Step Down Unit; the Pediatric Intensive Care Unit; the Pediatric Floor, and the Adult Psychiatric Unit. This wide variety of units was chosen because its collective patient population represents a broad range of clinical specialties and concurrent patient acuity requiring different degrees/types of nursing and physician care; thus, exposing both groups to various

sources of stress, as well as various degrees of dependence upon one another.

Subjects

The subjects of this study consisted of both nurses and physicians representing a wide variety of clinical specialties. Nurse respondents were selected via a quota sampling and included staff nurses, nurse clinicians, clinical nurse specialists and nurse managers. Physician respondents were also selected via a quota sampling and included physician chiefs, unit directors and staff attendings. The quota sampling methodology was utilized by the researcher due to the desire to deliberately select a sample that shares particular characteristics in the same proportions. For purposes of this study, the particular nurse characteristics were employment on specific patient care units and/or employment in a specific classification, i.e. staff nurse, nurse manager, nurse clinician, or clinical nurse specialist. The particular physician characteristic necessitating quota sampling was clinical and/or administrative affiliation with a specific patient care unit. The questionnaires were distributed to a

total sample of 100 nurses and 50 physicians (representing the 2:1 employment ratio at the facility). The total number of Registered Nurses (at the time of the study) employed at the test facility was approximately 600. The total number of physicians, primarily functioning in clinical roles at the time of the study, was approximately 300.

Instrumentation

To determine if a relationship does exist between a collaborative practice environment and job stress and nurse satisfaction at a major tertiary care hospital, two tools, and a series of three questions were utilized by the researcher. In addition to the tools and questions, demographic data on the various respondents was collected and examined.

The first tool, the NURSING STRESS SCALE (Gray-Toft and Anderson, 1981) (Appendix F) was utilized in order to assess the stress associated with various situations confronting the hospital based nurse. The tool consisted of 34 items which described situations that have been identified as causing stress for nurses in the performance of their duties. It provided a total stress score as well as scores on each of seven

subscales that measure the frequency of stress experienced by nurses in the hospital environment. The Nursing Stress Scale (NSS) is based upon 34 potentially stressful situations that were identified from the literature and from interviews with nurses, physicians and chaplains. The seven subscales are death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, workload, and uncertainty concerning treatment.

In a study done in 1981 by Gray-Toft and Anderson, the Nursing Stress Scale was administered to 122 nurses on five hospital units. Factor analysis indicated seven major sources of stress that closely paralleled the conceptual categories of stress on which the scale was based. The test-retest coefficient for the total scale was 0.81. Four measures of internal consistency were obtained: a Spearman-Brown coefficient of 0.79, a Guttman split half coefficient of 0.79, a coefficient alpha of 0.89, and standardized item alpha of 0.89. All four measures indicated a satisfactory level of consistency among items. Validity was determined by correlating

the total score from the Nursing Stress Scale with measures of trait anxiety, job satisfaction, and nursing turnover hypothesized to be related to stress. In addition, the ability of the scale to differentiate hospital units and groups of nurses known to experience high levels of stress resulting in staff turnover was examined. The NSS is self-administered and requires less than ten minutes to complete. Four response categories were provided for each item: Never (0), Occasionally (1), Frequently (2), and Very Frequently (3).

The second tool which was utilized in conducting this study was the COLLABORATIVE PRACTICE SCALES (Appendix G and Appendix J) which is an instrument designed to measure collaborative practice behavior as it is reportedly used by nurses and physicians (Weiss and Davis, 1985). The work of both nurse and non-nurse theorists has supported collaboration as having three key features: (1) the active and assertive contribution of each party; (2) receptivity to and respect for the other party's contributions; and (3) a negotiating process that builds upon the contributions of both parties to form a new way of conceptualizing

the problem. The test scales in this study were developed to measure these features of collaboration within the specific relationship of nurse and physician. As with the Nursing Stress Scale, four response categories were provided for each item: Never (0), Occasionally (1), Frequently (2), and Very Frequently (3). Higher scores implied a greater use of collaborative practice by the physician or nurse.

The Collaborative Practice Scales developed by Weiss and Davis were utilized to study a sample of 200 physicians and 200 nurses affiliated with a major health sciences center in a western metropolitan area. The discriminate validity ($p < .001$) and predictive validity ($p < .01$) of the instrument have been demonstrated. Reliability estimates include an alpha coefficient of .82 for internal consistency of the total index and test-retest correlation of .77.

Three additional questions were also asked to both the nurse and physician respondents as part of the Collaborative Practice Scale. Both physicians and nurses were asked the extent to which they agreed with a professionally determined definition of collaborative practice as being:

...a jointly determined relationship between the nurses and physicians working together in practice, the purpose being to integrate their regimen into a single comprehensive approach to their patients' need (NCN, 1983).

Respondents were asked to choose from the following responses: Agree (0), Agree Somewhat (1), Disagree Somewhat (2), Disagree (3). Space was provided for any comments the respondents might have regarding this question.

Both physicians and nurses were asked if they were satisfied with the degree of collaborative practice that exists between physicians and nurses. Respondents were asked to choose from the following responses: Satisfied (0), Somewhat Satisfied (1), Somewhat Dissatisfied (2), Dissatisfied (3).

Both physicians and nurses were also be asked if they believe the issue of collaborative practice is a significant variable in the recruitment and retention of nurses. Respondents were asked to choose from the following responses: Significant (0), Somewhat Significant (1), Somewhat Non-Significant (2), Non-Significant (3).

Along with the Nursing Stress Scale which was distributed to the nurses and the Collaborative

Practice Scales which were distributed to both the nurses and the physicians, respondents were asked to complete nurse and physician demographic sheets.

The NURSING DEMOGRAPHICS (Appendix E) included the level of educational preparation, position (staff nurse, manager, clinician, clinical nurse specialist), years of experience, age, sex, unit specialty, full time or part time status, and the estimated amount of time spent providing direct patient care.

The PHYSICIAN DEMOGRAPHICS (Appendix I) were collected to include the general area of practice (medicine, surgery, pediatrics) subspecialty area (cardio-thoracic surgery, vascular surgery, general surgery, cardiology, pulmonary, pediatric surgery, etc), age, sex, years of practice and any special entitlement (unit director, physician chief).

Procedure

Prior to conducting this study, a proposal was forwarded to the Nursing Research Committee at the University of Massachusetts Medical Center in Worcester, MA where the study was conducted. The proposal included the completion of a packet containing all the criteria that must be met in order

containing all the criteria that must be met in order to receive PERMISSION TO CONDUCT STUDY (Appendix C). This included completion of Chapters I and II, the instruments that were utilized and proof of the respective author PERMISSION (Appendix A and Appendix B), the informed consent contract utilized, the method of distribution and collection utilized for both the informed consent and the tools, the methodology utilized to insure anonymity, and the associated time frame for the data collection. One hundred nurses and 50 physicians were asked to participate in this particular study. Both nurses and physicians were selected randomly from a roster of names. A COVER LETTER letter explaining the purpose of the research was attached to the specific tools for both the nurse and physician groups (Appendix D and Appendix H). Respondents were asked to return their completed tools, via campus mail, to the researcher. Return envelopes for this purpose were provided.

Data Analysis

In analyzing the collected data, the researcher focused on responding to the five research questions identified in the purpose of this dissertation. The

researcher identified the individual items and collective subscales that reflect the greatest categories of stress for the nurse respondents via the establishment of contingency tables. Demographic data was assessed in order to report characteristics of the respondents, including age, sex, full or part-time status, years of experience, position held, and area of clinical specialty. The Nurse and the Physician Collaborative Practice Scales were analyzed separately and then compared to one another in order to determine whether or not a significant variance in reported results exists.

The researcher compared the nurse and physician respondents relative to each groups satisfaction with the degree that collaborative practice exists between nurses and physicians and how significant each group believes the issue of collaborative practice is in the recruitment and retention of nurses. The researcher analyzed the responses of the two groups to the definition of collaborative practice that was provided. These results are reported for each individual group and then group responses were compared to one another via Mann-Whitney U Testing.

Finally, the researcher described those relationships that existed between the stress subscales results and the results of the Nurse Collaborative Practice Scale.

In analyzing the data, the tools were analyzed separately, and collective comparisons were done. Both descriptive and inferential statistical analysis were done by the researcher. A type one error rate of .05 was utilized by the researcher in order to determine statistical significance.

Descriptive Statistics

Frequency distributions (tables) were utilized in order to present a systematic arrangement of numerical values from the highest to the lowest, together with a count of the number of times each value was obtained.

- . The subscales of the Nursing Stress Scale were analyzed and ranked according to the mean stress score that each depicted (high to low ranking was done)
- . Variability (that expresses the extent to which scores deviate from one another) was determined via the standard deviation.

- . A contingency table was utilized to compare the perceived tendency of the nurse and the physician to practice collaboratively.
- . Correlation methodologies were utilized to compare demographic distributions to NSS, NCPS, PCPS and the additional questions dealing with collaborative practice.

Inferential Statistics

- . Quota sampling was utilized in obtaining both the nurse and physician respondents.
- . t-testing was done in order to test the differences in group means between nurse and nurse physician responses.
- . Mann-Whitney U-testing was done in order to determine if a relationship existed between the responses reported by the nurses and physicians.

CHAPTER IV

RESULTS AND DISCUSSION

Overview

This chapter presents the data analysis and discussion pertaining to collaborative practice and its relationship to job stress and nurse satisfaction. An overview of demographic data relating to the nurse and physician research sample is reported. In addition, the findings related to each tool utilized by the researcher, as well as an explanation of the relationship of the data analysis to each identified research question is presented and discussed.

Demographics

Fifty questionnaires were distributed randomly to physicians and 100 questionnaires were similarly distributed to registered nurses. Thirty-three physician questionnaires were returned (66 percent) and 57 questionnaires from registered nurses were returned (57 percent). Response percents are depicted in Figure 8, page 65. Of the nurse respondents, 93 percent were female and 7 percent were male. Of the physician respondents, 9 percent were female and 91 percent were male. This data is represented in Figure 9, page 65.

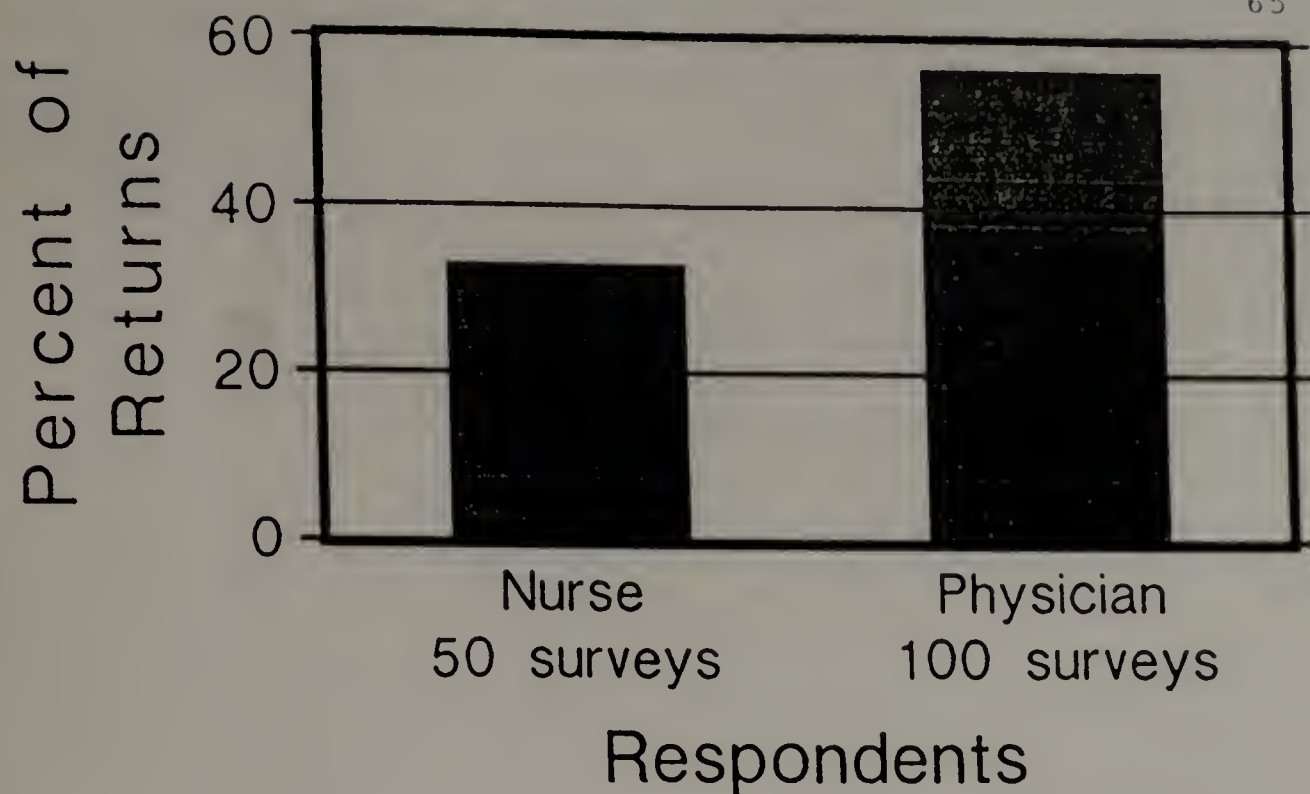


Figure 8

NURSE / PHYSICIAN SAMPLE COMPARISON OF RESPONSES

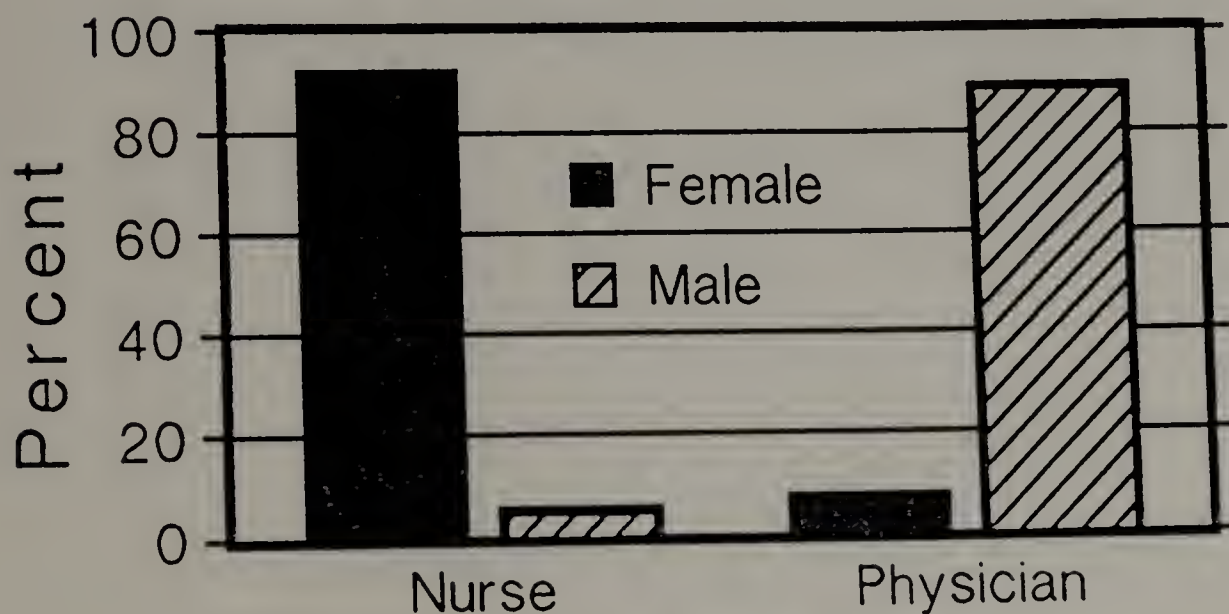


Figure 9

CHARACTERISTICS OF SAMPLE SEX

Figure 10, page 67 represents the educational level of nurse respondents was 48 percent BSN, 25 percent Diploma, 14 percent MSN, 11 percent Associate Degree, and other degrees 2 percent.

Figure 11, page 67 represents the age distribution of the nurse respondents which 40 percent 20-30 years, 44 percent 31-40 years, and 16 percent 41+ years, while the age distribution of the physician respondents was 48 percent 20-30 years, 36 percent 31-40 years, and 16 percent 41+ years. The nurse age findings compare to a national sampling which reports that the average age of a full time staff nurse working in a hospital to be 35 (Minnick, et al 1989). There was no data available concerning the average age of attending physicians employed in hospitals.

Figure 12, page 69 represents the years of practice distribution for the nurse respondents which was 7 percent 0-5 years, 43 percent 6-10 years, 28 percent 11-15 years, 11 percent 16-20 years and 11 percent 20+ years. The years of practice distribution for the physician respondents was 19 percent 0-5 years, 30 percent 6-10 years, 25 percent 11-15 years, 13 percent 16-20 years, and 13 percent 20+ years.

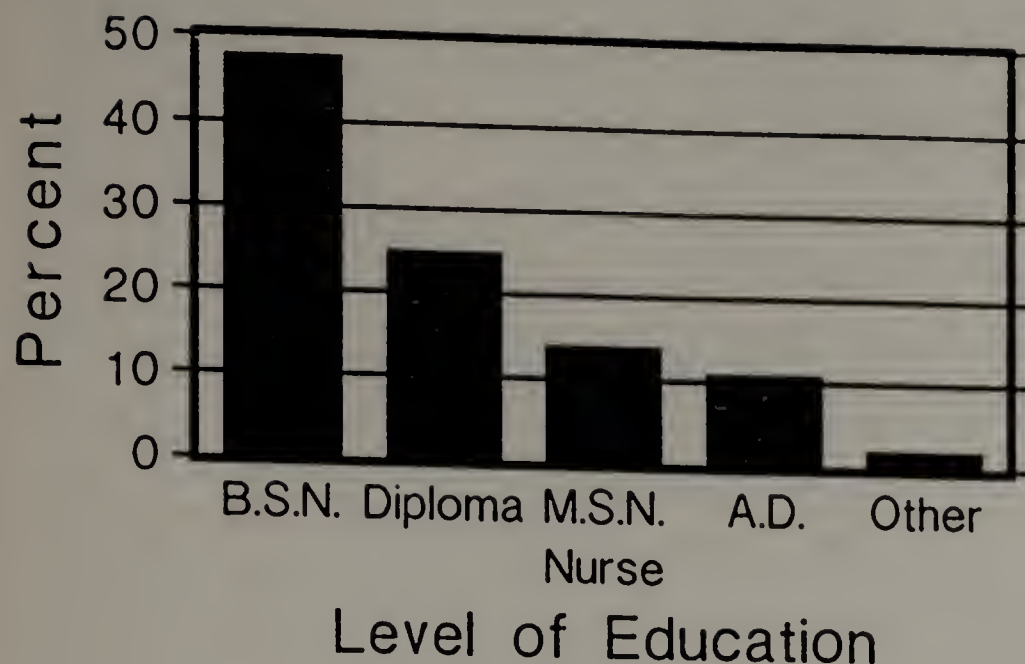


Figure 10

CHARACTERISTICS OF SAMPLE EDUCATION

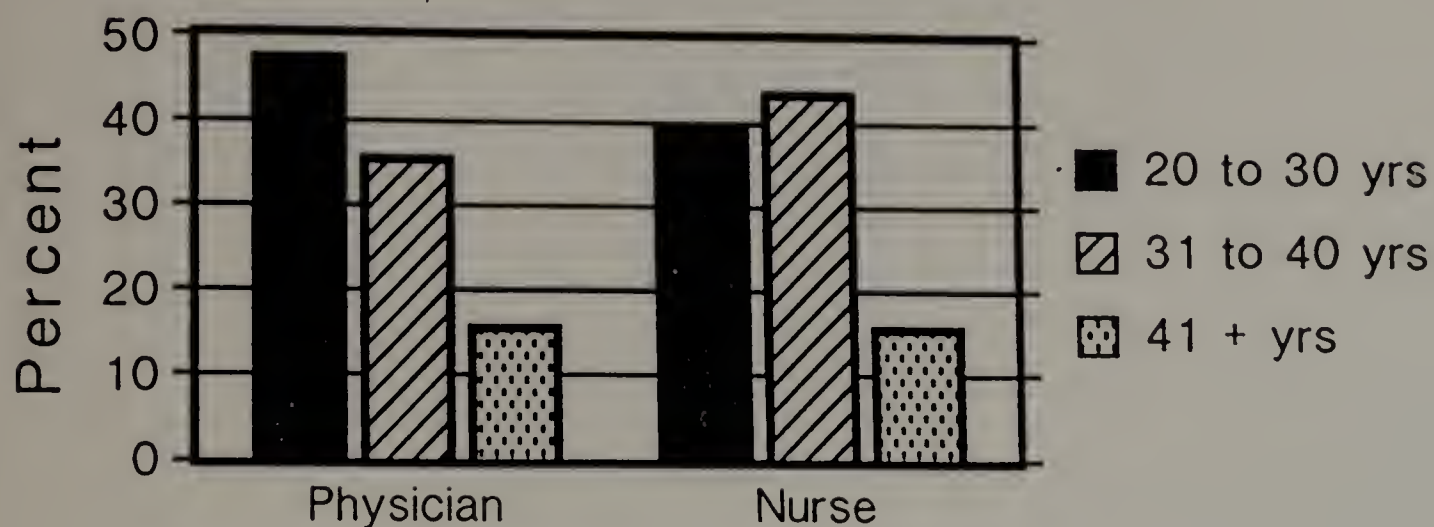


Figure 11

CHARACTERISTICS OF SAMPLE AGE

Figure 13, page 69, reflects that 71 percent of the nurse respondents work full time and 29 percent reported that they work less than 40 hours per week. This compares to national finding which reports that one-third of all registered nurses work part time with a mean average of 20 hours per week. Figure 14, page 70, reflects the breakdown of direct patient care hours by the nurse respondents which was 30 percent 0-10 hours, 14 percent 11-20 hours, 7 percent 21-30 hours, and 48 percent 31-40 hours.

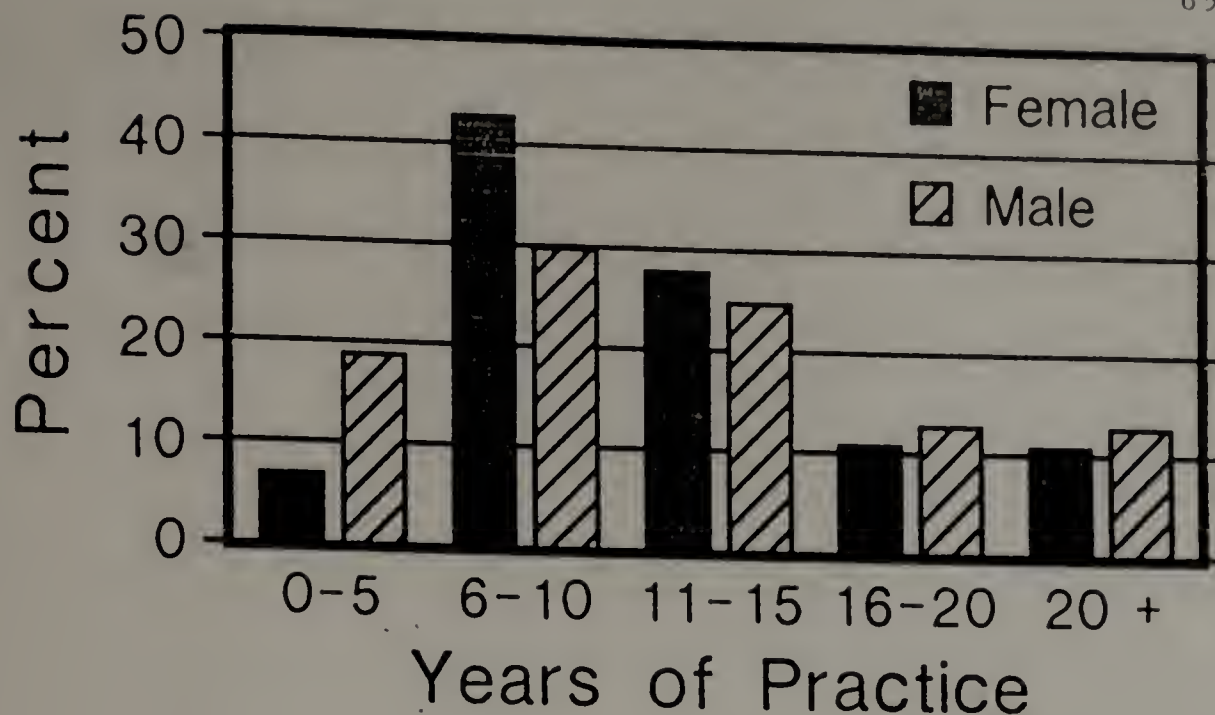


Figure 12

CHARACTERISTICS OF SAMPLE YEARS OF PRACTICE

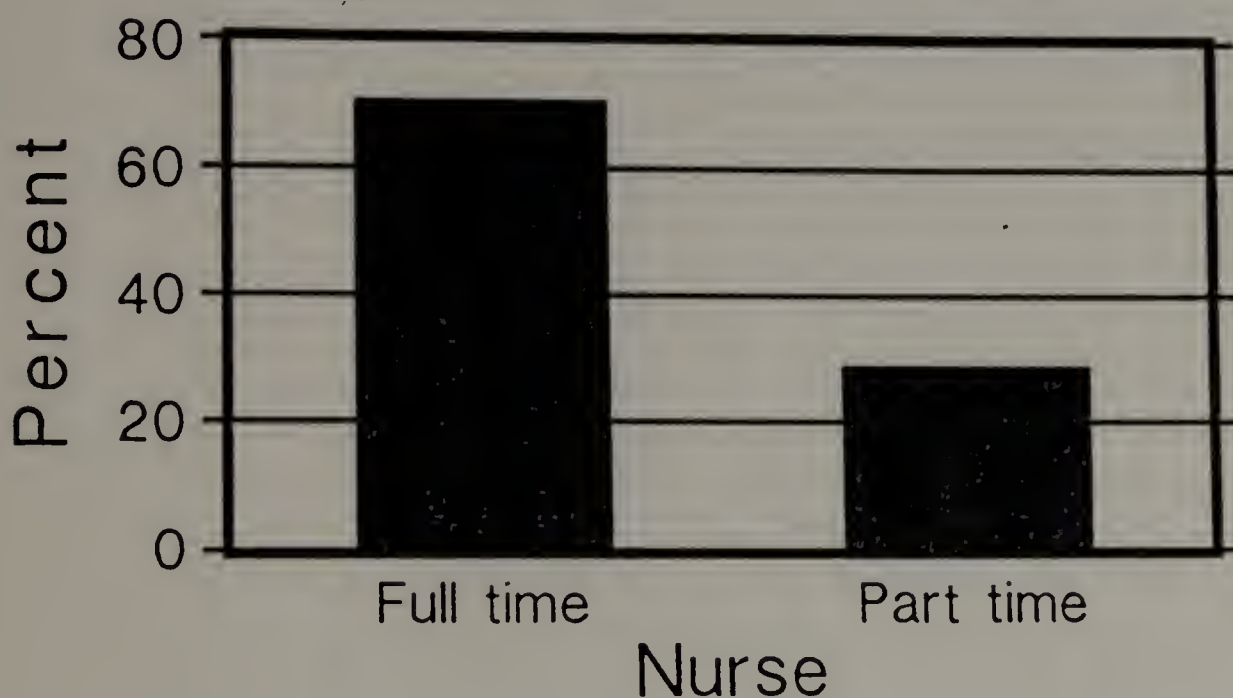


Figure 13

CHARACTERISTICS OF SAMPLE WORK STATUS

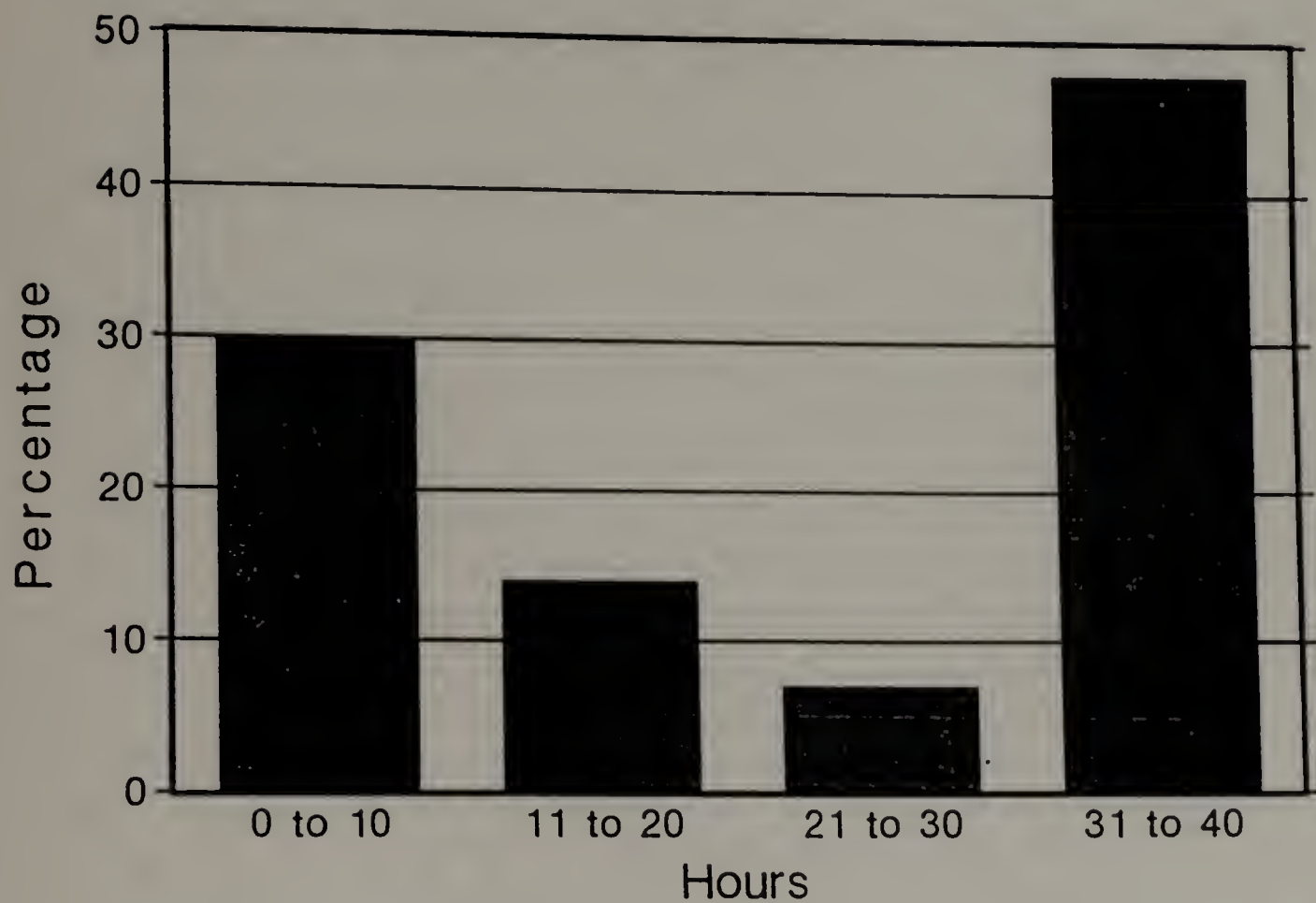


Figure 14
CHARACTERISTICS OF SAMPLE
DIRECT CARE HOURS

Table 1 reports the specific position held by the physician/nurse sample.

TABLE 1

POSITION HELD BY PHYSICIAN/NURSE SAMPLE		
<u>Position</u>	<u>Frequency</u>	<u>Percent</u>
Attending Physician	23	25.8
Service Chief	6	6.7
Department Chairman	3	3.4
Unit Director	1	1.1
Staff Nurse	32	36.0
Nurse Manager	11	12.4
Clinical Nurse Specialist	3	3.4
Nurse Clinician	10	11.2

The area of clinical specialty reported by the physician respondents was 32 percent Medicine, 47 percent Surgery, 15 percent Pediatrics, and 6 percent Psychiatry.

Table 2, page 72 depicts the area of clinical specialty reported by the nurse respondents (as indicated by clinical unit of employment).

TABLE 2

CLINICAL SPECIALTY OF NURSE RESPONDENTS

<u>Unit Specialty</u>	<u>Frequency</u>	<u>Percent</u>
Medical (General)	6	10.9
Medical Step Down	3	5.5
Surgical (General)	9	16.4
Surgical Step Down	2	3.6
Coronary Care Unit	4	7.3
Medical Intensive Care Unit	4	7.3
Cardio-Thoracic	2	3.6
Surgical Intensive Care Unit	4	7.3
Pediatrics	7	12.7
Pediatric Intensive Care Unit	4	7.3
Post Anesthesia Care Unit	2	3.6
Emergency Department	4	7.3
Psychiatry	4	7.3

The Nursing Stress Scale

The Nursing Stress Scale consists of 34 items that describe situations that have been identified as causing stress for nurses in the performance of their duties (Gray-Toft and Anderson, 1981). It provides a total stress score as well as

scores on each of seven subscales that measure the frequency of stress experienced by nurses in the hospital environment.

The Nursing Stress Scale was administered to 100 nurses on 13 in-patient hospital units. Four response categories were provided for each item: Never (0), Occasionally (1), Frequently (2), and Very Frequently (3). Table 3 Page 74-77 reports the results of Items and Item Statistics for the Nursing Stress Scale.

Two estimates of the reliability of the Nursing Stress Scale were determined, a coefficient alpha of 0.84 and a standardized item alpha of 0.89. These measures indicated a satisfactory level of consistency among items. Gray-Toft and Anderson (1981) reported a coefficient alpha of 0.89 and a standardized item alpha of 0.89 in their study.

TABLE 3

ITEMS AND ITEM STATISTICS FOR THE NURSING STRESS SCALE

ITEM		MEAN	SD
FACTOR I: DEATH AND DYING			
3	Performing procedures that patients experience as painful.	1.64	.80
4	Feeling helpless in the case of a patient who fails to improve.	1.50	.66
6	Listening or talking to a patient about his/her approaching death.	1.13	.66
8	The death of a patient.	1.25	.65
12	The death of a patient with whom you developed a close relationship.	1.07	.66
13	Physician not being present when a patient dies.	.607	.68
21	Watching a patient suffer.	1.57	.57
FACTOR II: CONFLICT WITH PHYSICIANS			
2	Criticism by a physician.	1.14	.62
9	Conflict with a physician.	1.23	.57
10	Fear of making a mistake in treating a patient.	1.05	.59
14	Disagreement concerning the treatment of a patient.	1.32	.54
19	Making a decision concerning a patient when the physician is unavailable.	1.00	.60

Continued

TABLE 3 - Continued

ITEMS AND ITEM STATISTICS FOR THE NURSING STRESS SCALE

ITEM	MEAN	SD
FACTOR III: INADEQUATE PREPARATION		
15 Feeling inadequately prepared to help with the emotional needs of a patient's family.	.964	.631
18 Being asked a question by a patient for which I do not have a satisfactory answer.	1.04	.05
23 Feeling inadequately prepared to help with the emotional needs of a patient.	.875	.54
FACTOR IV: LACK OF SUPPORT		
7 Lack of an opportunity to talk openly with other unit personnel about problems on the unit.	.893	.76
11 Lack of an opportunity to share experiences and feelings with other personnel on the unit.	.821	.64
16 Lack of an opportunity to express to other personnel on the unit my negative feelings toward the patient.	.464	.503
FACTOR V: CONFLICT WITH OTHER NURSES		
5 Conflict with a supervisor.	.855	.65
20 Floating to other units that are short staffed.	.732	.84
22 Difficulty in working with a particular nurse (or nurses) outside the unit.	.679	.58

Continued

TABLE 3 - Continued

ITEMS AND ITEM STATISTICS FOR THE NURSING STRESS SCALE

ITEM	MEAN	SD
FACTOR V: CONFLICT WITH OTHER NURSES		
24 Criticism by a supervisor.	.709	.58
29 Difficulty in working with a particular nurse (or nurses) on the unit	.964	.43
FACTOR VI: WORK LOAD		
1 Breakdown of computer.	.67	.58
25 Unpredictable staffing and scheduling.	1.02	.58
27 Too many non-nursing tasks required, such as clerical work.	1.68	.69
28 Not enough time to provide emotional support to a patient.	1.52	.71
30 Not enough time to complete all of my nursing tasks.	1.30	.71
34 Not enough staff to adequately cover the unit.	1.07	.47
FACTOR VII: UNCERTAINTY CONCERNING TREATMENT		
17 Inadequate information from a physician regarding the medical condition of a patient.	1.23	.60
26 A physician ordering what appears to be inappropriate treatment for a patient.	1.13	.54

Continued

TABLE 3 - Continued

ITEMS AND ITEM STATISTICS FOR THE NURSING STRESS SCALE

ITEM	MEAN	SD
FACTOR VII: UNCERTAINTY CONCERNING TREATMENT		
31 A physician not being present in a medical emergency.	.804	.64
32 Not knowing what a patient or a patient's family ought to be told about the patient's condition and its treatment.	1.04	.63
33 Uncertainly regarding the operating and functioning of specialized equipment.	.839	.53

Item Stress Score

The rank order of the ten responses reflecting the highest frequency of stress for nurses participating in the study are:

- #27 Too many non-nursing tasks required, such as clerical work (1.68)
- # 3 Performing procedures that patients experience as painful (1.64)
- #21 Watching a patient suffer (1.57)
- #28 Not enough time to provide emotional support (1.52)

- # 4 Feeling helpless in the case of a patient who fails to improve (1.50)
- #14 Disagreement concerning the treatment of a patient (1.32)
- #30 Not enough time to complete all of my nursing tasks (1.30)
- # 8 Death of a patient (1.25)
- # 9 Conflict with a physician (1.23)
- #17 Inadequate information from physician regarding medical condition of a patient (1.23)

In addition to providing an item stress score, the nursing stress scale provides a total score on each of seven subscales as well. The following section provides an explanation of each subscale, the mean score of each subscale and the individual reliability coefficients for each subscale.

Subscale Scores

Subscale I: Death and Dying: This subscale largely measures stress situations resulting from the suffering and death of patients. Four of the seven items are related to the death of a patient. Two other items are associated with patients who fail to improve or who suffer. The performance of painful procedures is also potentially stressful.

(Items 3, 4, 6, 8, 12, 13, 21)

Mean Score 8.65

Reliability Coefficients Alpha .7037

Standardized Item Alpha .7107

Subscale II: Conflict with Physicians: This subscale consists of stressful situations that arise from the nurse's interactions with physicians. Two items are related to criticism by a physician and conflict with a physician. The other items pertain to the nurse's fear of making mistakes concerning treatment in the absence of a physician and disagreement concerning treatment.

(Items 2, 9, 10, 14, 19)

Mean Score 5.71

Reliability Coefficients Alpha .6120

Standardized Item Alpha .6175

Subscale III: Inadequate Preparation to Deal with the Emotional Needs of Patients and Their Families: Three items in this subscale concern nurses' attempts to meet the emotional needs of patients and their families. Feeling inadequately prepared to deal with these psychological and emotional needs may lead to stress.

(Items 15, 18, 23)

Mean Score 2.82

Reliability Coefficients Alpha .7051

Standardized Item Alpha .7109

Subscale IV: Lack of Staff Support: This fourth subscale measures the nurse's assessment of the extent to which opportunities are available to share experiences with other nurses and to vent negative feelings of anger and frustration. The lack of such opportunities may result in stress for nurses.

(Items 7, 11, 16)

Mean Score 2.82

Reliability Coefficients Alpha .6604

Standardized Item Alpha .6739

Subscale V: Conflict with Other Nurses and Supervisors: The items in this subscale are associated with conflictual situations that arise between nurses and supervisors. Two of the items involve conflict with or criticism by a supervisor; the other three items have to do with conflict with nurses on the same or other hospital units.

(Items 5, 20, 22, 24, 29)

Mean Score 3.90

Reliability Coefficients Alpha .5352

Standardized Item Alpha .5926

Subscale VI: Work Load: This subscale includes stressful situations that arise from the nurse's work load, staffing and scheduling problems, and inadequate time to complete nursing tasks and to support patients emotionally.

(Items 1, 25, 27, 28, 30, 34)

Mean Score 7.16

Reliability Coefficients Alpha .6550

Standardized Item Alpha .6378

Subscale VII: Uncertainty Concerning Treatment:

Stressful situations also arise when there is uncertainty concerning the treatment of patients. This may develop when the physician fails to adequately communicate to the nurse information concerning a patient's medical condition. When this occurs the nurse does not know what to tell a patient or the patient's family about the medical condition and its treatment. Another potentially stressful situation occurs when a physician is not present in a medical emergency.

(Items 17, 26, 31, 32, 33)

Mean Score 4.88

Reliability Coefficients Alpha .6641

Standardized Item Alpha .6293

The rank order from high to low of the seven subscales relative to the mean stress score associated with each is as follows:

1. Subscale I: Death and Dying (8.65)
2. Subscale VI: Work Load (7.16)
3. Subscale II: Conflict with Physicians (5.71)
4. Subscale VII: Uncertainly Concerning Treatment (4.88)
5. Subscale V: Conflict with Other Nurses/ Supervisors (3.90)
6. Subscale III: Inadequate Preparation to Deal with the Emotional Needs of Patients and Their Families (2.82)
7. Subscale IV: Lack of Staff Support (2.12)

Discussion of the Nursing Stress Scale

For purposes of this study the researcher chose to focus on Subscale II which deals with Conflict with Physicians and the stress associated by nurses to this particular category of items. However, it is significant and worthwhile to note that the rank findings of the Nursing Stress Scale are not unlike the findings relating to job dissatisfaction that are

reported by Roedel and Nystrom (1988) which are presented in the review of literature. Also important to note was although the researcher has focused on Subscale II for purposes of this study, this particular subscale ranked third in terms of a mean stress score. Stress on the part of nurses resulting from situations dealing with death and dying (Subscale I) and from those situations dealing with work load variables (Subscale VI) presented more stress to the nurse than conflict with physicians. Clearly, these subscale findings warrant further study. The fact that Subscale II which deals with nurse-physician conflict ranked third among the seven subscales does suggest that nurse-physician conflict is a serious variable that contributes to job stress on the part of hospital employed nurses participating in this study. Hinshaw et al. (1987) state that job stress is the strongest predictor of professional/occupational job satisfaction.

Job stress has also been identified by Roedel and Nystrom (1988), Tobin (1987), Gray-Toft and Anderson (1981), and Hinshaw and Atwood (1987) as contributing to nurse dissatisfaction. The consequences of dissatisfaction among hospital nurses include

tardiness, absenteeism, substance abuse, physical illness (Albrecht, 1982; Chiriboga and Bailey, 1986; and Pines and Kanner, 1982). Other negative sequels include nursing burnout (Albrecht, 1982), nursing turnover (Babley, 1986), lack of interest in pursuing nursing as a career (Porter, 1985) and negative influences concerning patient satisfaction with care and their subsequent compliance with treatment (Friss, 1988).

The Nurse/Physician Collaborative Practice Scales

The Nurse Collaborative Practice Scale (Weiss and Davis, 1985) was administered randomly to the same 100 nurses who also responded to the Nursing Stress Scale. The Physician Collaborative Practice Scale (Weiss and Davis, 1985) was administered randomly to 50 attending physician staff from four major clinical services at the same tertiary care medical center which employs the nurse respondents. Four response categories were provided for each item in the scale: Never (0), Occasionally (1), Frequently (2), and Very Frequently (3).

The Collaborative Practice Scale for nurses consists of nine items with a possible score of 27. The Nurse Collaborative Practice Scale has two factors

with one factor having a maximum score of 15 and the other 12. The first factor consists of items 1, 2, 4, 6 and 9 and measures the degree to which a nurse directly asserts professional expertise and opinion when interacting with physicians about patient care. The second factor consists of items 3, 5, 7, and 8 and measures the degrees to which a nurse clarifies with physicians mutual expectations regarding the nature of shared responsibilities in patient care.

The Collaborative Practice Scale for physicians consists of ten items which are divided into two factors of five items each. Each factor has a maximum possible score of 15 with the total Physician Collaborative Practice Scale having a maximum score of 30. Items 1, 2, 3, 4 and 10 constitute the first factor which measures the degree to which a physician acknowledges the importance of nurses' unique contributions to different responsibilities in patient care. Items 5, 6, 7 and 9 constitute the second factor which measures the degree to which a physician seeks consensus with nurses regarding mutual responsibilities and patient care goals.

Higher scores indicate greater use of collaborative practice by the physician or nurse

completing the scale based on self-report regarding interprofessional practices in patient care activities. Table 4 reports the results of the Nurse/Physician Collaborative Practice Scales.

TABLE 4

NURSE/PHYSICIAN COLLABORATIVE PRACTICE SCALES		
<u>Nurse CPS</u>	<u>Mean</u>	<u>Max Score Potential</u>
Factor I (RN Asserts Professional Expertise)	6.3	15
Factor II (RN Clarifies Mutual Expectations)	6.8	12
Total Collaborative Score	13.1	27
<u>Physician CPS</u>	<u>Mean</u>	<u>Max Score Potential</u>
Factor I (MD Acknowledges Nurse Unique Contribution)	12.3	15
Factor II (MD Seeks Consensus with Nurses)	8.5	15
Total Collaborative Score	20.8	30

Discussion of the Collaborative Tool

There was a slight difference in the Collaborative Practice Scales reported by the Nurses and Physicians who participated in this study. The nurse respondents reported a total collaborative score which was approximately 50 percent of the maximum score they could have achieved. The physician

respondents reported a total collaborative score which was approximately 66 percent of the maximum achievable score.

The researcher could not find any literature references related to an acceptable quantitative amount of nurse-physician collaboration that is conducive to supporting a positive work environment, however, in evaluating a collaborative practice project at Hartford Hospital, England (1986) reported specific benefits related to the effort. These included: (1) patients reported increased satisfaction with the care they received; (2) nurses reported increased job satisfaction as they developed collegial relationships with physicians; (3) physicians felt that patient satisfaction had improved and patients were better and more responsibly cared for; and (4) hospital administrators identified vast improvement in the quality of patient care, and increase in patient and professional staff satisfaction, lowered indirect personnel costs, and ultimately lowered liability.

England (1986) contends that the nurturing of a collaborative practice environment can provide an atmosphere in which nurses have increased job

satisfaction and concomitant employee retention.

Mauksch (1981) states that nurse-physician collaboration is personally rewarding and professionally reaffirming to nurses.

The total collaborative score reported by the nurse respondents is interesting given the fact that this score represents a self assessment. In an era where nurses are supposedly seeking collegiality with their physician peers and are reporting a lack of willingness on the part of the physicians to function collaboratively, the low total collaborative score on the part of the nurse respondents is surprising. Given the low nursing self assessment score, one might question what degree of collaboration can reasonably be expected in turn from the physician group. On the other hand, the physician respondents report a high score on the particular collaborative factor that deals with the degree that the group perceives it acknowledges the unique contribution of the nurse. This finding may reflect an openness on the part of the physician respondents to collaborate with nurses.

There is one other likely interpretation related to these findings. Persons in power, this case the physicians, typically perceive themselves as being

more open, flexible, team-oriented (collaborative) than they are perceived to be by their subordinates. Therefore, the physicians may not be reflecting a willingness to practice more collaboratively, but simply may be reporting what they believe their present behavior to be. Conversely, the nurses may be reflecting a hopelessness about a situation that is as old as the nursing profession itself. In short, both the nurses and physicians may be responding to the situation as they perceive it functionally existing and not in terms of any internal readiness to practice differently.

Additional Questions

In addition to the Collaborative Practice Scales administered to both the nurses and the physicians, and the Nursing Stress Scale which was administered to only the nurses, three questions were asked of both the nurse and physician respondents.

Question 1 asked the respondents to what extent they agreed with the single definition of collaborative practice that was presented. The respondents could answer: Agree (0), Agree Somewhat (1), Disagree Somewhat (2), or Disagree (3).

Table 5 reports the findings of Question 1: Definition Agreement by Role.

TABLE 5

QUESTION 1: DEFINITION AGREEMENT BY ROLE
(Percentages)

	AGREE	AGREE SOMEWHAT	DISAGREE SOMEWHAT	DISAGREE
NURSE	71.4	25.0	0	3.6
PHYSICIAN	57.6	33.3	6.1	3.0
COMBINED NURSE PHYSICIAN	66.3	28.1	2.2	3.4

Question 2 asked the respondents if they were satisfied with the degree of collaboration that exists at the hospital that employs both groups. The responders could choose from: Satisfied (0), Somewhat Satisfied (1), Dissatisfied Somewhat (2), or Dissatisfied (3). Table 6, page 91 reports Question 2: Satisfaction by Role.

TABLE 6

QUESTION 2: SATISFACTION BY ROLE
(Percentages)

	SATIS- FIED	SOME SATISFIED	DISSATISFIED SOMEWHAT	DISSATIS- FIED
NURSE	12.3	45.6	22.8	19.3
PHYSICIAN	24.2	33.3	27.3	15.2
COMBINED NURSE PHYSICIAN	16.7	41.1	24.4	17.8

Question 3 asked both groups of respondents how significant they believed collaborative practice to be in the recruitment and retention of nurses. The respondents could answer: Significant (0), Somewhat Significant (1), Somewhat Non-Significant (2), or Non-Significant (3). Table 7, page 92 reports Question 3: Significance Between Collaboration and Nurse Recruitment and Retention by Role.

TABLE 7

QUESTION 3: SIGNIFICANCE BETWEEN COLLABORATION AND
NURSE RECRUITMENT AND RETENTION BY ROLE

	SIGNIF- CANT	SOMEWHAT SIGNIF- CANT	SOMEWHAT NON SIGNIFCANT	NON SIGNIF- CANT
NURSE	57.9	26.3	8.8	7.0
PHYSICIAN	35.7	39.3	21.4	3.6
COMBINED NURSE PHYSICIAN	50.6	30.6	12.9	5.9

Analysis of Research Questions

Research Question I

Does a relationship exist between the perceptions of nurses surrounding nurse-physician collaborative practice and the degree of stress defined by nurses in clinical situations?

In attempting to answer this research question the researcher compared the findings of the three independent questions dealing with collaborative practice to the findings of the particular subscale (II) of the Nursing Stress Scale that deals with nurse-physician conflict. The three independent questions were: (1) Do you agree with a

profesionally determined definition of collaborative practice as being:

...a jointly determined relationship between the nurses and physicians working together in practice, the purpose being to integrate their regimen into a single comprehensive approach to their patients' needs (NCN, 1983).

(2) Are you satisfied with the degree of collaborative practice that exists between physicians and nurses (in facility of employment)?, and (3) How significant is the issue of collaborative practice to the recruitment and retention of nurses?

The Spearman Rank Correlation Coefficient was utilized by the researcher in order to measure the strength of the relationship between Questions I, II, and III and the findings of SF II which reports the degree of stress associated with situations dealing with conflict with physicians. Table 8 reports the comparison of the independent questions to the stress reported by the nurse respondents.

TABLE 8

COMPARISON OF INDEPENDENT QUESTIONS TO REPORTED STRESS

	<u>QUESTION I</u>	<u>QUESTION II</u>	<u>QUESTION III</u>
SF II	.1417	.5095	.0655
	N (55)	N (56)	N (56)
	Sig. .302	Sig. .000	Sig. .632

Discussion of Question I

Based upon the findings reported by the researcher there exists no significant relationship between Questions I and III and the degree of stress reported by nurses relative to physician conflict. However, given that the significant of the correlation between Question II and SF II is $<.001$, there does exist a relationship between these variables. Question II asks the nurse if she is satisfied with the degree of collaborative practice that exists between nurses and physicians and SF II is a subscale of the Nursing Stress Scale which reflects the frequency of stress reported by nurses in situations relative to conflict with physicians in the hospital environment.

In response to the question regarding satisfaction with the amount of collaboration that exists between nurses and physicians, 57.9 percent of the nurses responded positively to either satisfied (12.3 percent) and somewhat satisfied (45.6 percent). Forty-three percent responded negatively to either dissatisfied somewhat (22.8 percent) and dissatisfied (19.3 percent). Although the cumulative positive

responses outnumber the cumulative negative responses, nurses reported a higher level of outright dissatisfaction with collaborative practice than outright satisfaction by almost 2:1.

The fact that the nurse respondents rated Subscale II (Conflict with Physicians) as stressful and the particular findings related to the question concerning satisfaction with collaborative practice, the researcher believes that there does exist issues and concerns regarding nurse physician collaborative practice at the facility where the study was done.

The issues of stress and dissatisfaction concerning collaborative practice between nurses and physicians are certainly not unique to this group of nurse respondents or this one facility although specific data on this issue is not abundant in the literature. What surfaces frequently in the literature are general references to dissatisfaction by nurses with the working environment within hospitals. Lemler and Leach, 1986; Hinshaw, Smeltzer, Atwood, 1987; Roedel and Nystrom, 1988; Mann and Jefferson, 1988; Luz S. Porter, 1985; Tobin, 1987; Gray-Toft and Anderson, 1981; and Devereux, 1981 all

make specific reference to the variables of overwhelming job stress, failure in being valued as an important member of the health care team, the lack of professional respect received from physicians, and actual conflict with physicians as significant contributors to job dissatisfaction which in turn affects the recruitment and retention of nurses.

Research Question II

Does a relationship exist between the frequency of collaboration reported by nurses and the stress reported by nurses?

In attempting to answer this research question, the researcher: (1) determined if a negative or positive correlation existed between the subscale findings of the Nursing Stress Scale (II) that deals with nurse-physician conflict and the findings of the nurse collaborative practice scale; (2) compared the average score of the Nurse Collaborative Practice Scale to the Physician Practice Scale, and (3) performed a t-test in order to compare the cumulative average of both the nurse and physician collaborative practice scales.

Table 9 reports the Nursing Stress Results compared with the Nurse Collaborative Scores based upon the Pearson Correlation Coefficient.

Table 10 reports a comparison of Nurse and Physician Collaborative Scores based upon t-testing methodology.

TABLE 9

NURSING STRESS RESULTS COMPARED WITH NURSE COLLABORATIVE SCORES (PEARSON CORRELATION COEFFICIENT)	
Assert PR	SF II .0824 (56) P = .546
Clarify	.2427 (56) P = .072

TABLE 10

COMPARISON OF NURSE AND PHYSICIAN COLLABORATIVE PRACTICE SCORES (t-test)				
<u>VARIABLE</u>	<u># OF CASES</u>	<u>MEAN</u>	<u>STANDARD DEVIATION</u>	<u>STANDARD ERROR</u>
<u>AVERAGE COLLABORATION SCORE</u>				
Nurse	56	1.4593	0.529	0.071
MD	33	1.6455	0.667	0.116

Discussion of Question II

The Pearson Correlation Coefficient did not report significant findings in determining the existence of a relationship between the nursing collaborative practice scale findings and the frequency of stress reported by nurses related to nurse physician conflict.

The t-test which was performed in order to compare the total collaboration scores reported by nurses and physicians was not significant. The observed difference between the mean scores was .19 which is not statistically significant. The t value of -1.45 and the 2-tail probability of 0.150 are also not statistically significant. These tests failed to prove that there exists a significant difference between the mean collaborative scores reported by the nurse and physician respondents.

Research Question III

What is the comparative relationship that exists between the satisfaction expressed by nurses and by physicians relative to the degree that collaborative practice exists (in the facility of employment)? In answering this research question the researcher

compared the results of a specific question asked to both groups of respondents. The question read, "Are you satisfied with the degree of collaborative practice that exists between physicians and nurses (in test facility)?"

Table 11 reports the percentage of collaborative satisfaction by role.

TABLE 11

COLLABORATIVE SATISFACTION BY ROLE (Percentages)				
	SATIS- FIED	SOME SATISFIED	DISSATISFIED SOMEWHAT	DISSATIS- FIED
NURSE	12.3	45.6	22.8	19.3
PHYSICIAN	24.2	33.3	27.3	15.2

Table 12, page 100, reports the findings of a Mann Whitney U test which was also performed by the researcher in order to determine if a significant difference existed between the responses of the nurse and physician groups to the question of satisfaction with collaboration.

TABLE 12

COMPARISON OF SATISFACTION WITH COLLABORATION BY ROLE
Mann Whitney U

ROLE	MEAN RANK	CASES		
NURSE	46.89	57		
PHYSICIAN	43.09	33		
U	W	Z	2	TAILED-P
861.0	1422.0	-0.6994	0	4843

Discussion of Question III

Based upon the reported findings, there is not a statistically significant difference between the responses of the nurses and physicians regarding their respective degree of satisfaction with collaborative practice at the facility of employment. The most interesting finding is that, although nurses are more outright dissatisfied than physicians, only six nurses took the opportunity to provide any related comments. (The questionnaire provided a prompt for comments after each of three independent questions.)

Twenty three or 70 percent of all the physician respondents provided written comments to the questions and the majority commented on this satisfaction questions. The major theme indicated by the comments

was frustration on their part as a result of what they believe to be a failure on the part of nurses to respond to a collaborative gestor. The gestor, joint patient care rounds, has not positively nor consistently been responded to. Many physician respondents provided great detail about the difficulty in approaching nurses for purposes of rounding, the lack of interest on the part of nurses, the failure of nursing administration to articulate joint rounding as a high priority item, the defensive nature of nurses who feel "threatened" by such a prospect, the total lack of support for joint rounds on the part of many nurse managers, who should be serving as role models for the staff nurses in a collaborative model. Three of the physician responders commented that they were uncertain as to whether the lack of interest on the part of nurses to establish joint rounds was due to unwillingness or inability.

This issue of joint patient care rounds certainly appears to warrant further investigation by this organization if it is determined that collaborative practice is an environmental condition worth pursuing.

Research Question IV

What is the relationship between the degree of satisfaction expressed by nurses with the degree of collaborative practice and the significance of stress reported by nurses?

In answering this question the researcher utilized the Spearman Correlation Coefficients and compared the results of a specific question asked the nurse respondents (Are you satisfied with the degree of collaboration that exists between nurses and physicians within the test facility?) and the degree of stress reported by nurses responding to the Nursing Stress Scale Subscale II dealing with nurse-physician conflict. Table 13 reports the comparison between satisfaction with collaboration and the degree of job stress reported by nurses.

Table 13

A COMPARISON BETWEEN SATISFACTION WITH COLLABORATION
AND JOB STRESS
(Spearman Correlation Coefficients)

SF II	.5095
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Nurse/M.D. Conflict Stress Subscale	N (56)
--	--------

	Sig 000
--	---------

Discussion of Question IV

The findings reflect that there does exist a statistically significant relationship between the degree of satisfaction reported by nurses to the existing collaborative practice environment and the frequency of stress reported by nurses related to conflict with physicians.

The literature supports the relationship between the variables of collaboration and job stress. Increasing attention has been focused on investigating job stress and its consequences among nurses working in hospitals (Hinshaw and Atwood, 1987). Investigators have documented a number of major job stressors that staff nurses typically encounter including conflicts with physicians (Gray-Toft and Anderson, 1981). Hinshaw et al. (1987), states that job stress is the strongest predictor of professional/occupational job satisfaction.

Research Question V

To what extent do nurses and physicians believe that collaborative practice is a significant variable in the recruitment and retention of nurses?

In answering this question the researcher compared the results of a specific question asked to both groups of respondents. The question read "How significant is the issue of collaborative practice to the recruitment and retention of nurses." Table 14 presents the comparison of role responses to the question of collaborative practice as a significant variable in the recruitment and retention of nurses.

Table 14

SIGNIFICANCE OF COLLABORATION TO NURSE RECRUITMENT
AND RETENTION BY ROLE
(Percentages)

	SIGNIF- CANT	SOMEWHAT SIGNIF- CANT	SOMEWHAT NON SIGNIFICANT	NON SIGNIF- CANT
NURSE	57.9	26.3	8.8	7.0
PHYSICIAN	35.7	39.3	21.4	3.6

The researcher also performed the Mann-Whitney U test in order to determine if a statistically significant difference existed between the responses of the nurse and physician groups. Table 15, page 105 reports the comparison of collaborative practice significance to nurse recruitment and retention by role.

Table 15

A COMPARISON OF COLLABORATIVE PRACTICE TO NURSE RECRUITMENT AND RETENTION (Mann-Whitney U)				
ROLE	MEAN RANK		CASES	
NURSE	40.01		57	
PHYSICIAN	49.09		28	
U	W	Z	2 TAILED-P	
627.5	1374.5	-1.7398	0.0819	

Discussion of Question V

The results of the Mann-Whitney u test are not statistically significant. More nurses (84.2 percent) see the relationship of collaborative practice to recruitment and retention as significant or somewhat significant as compared to the physician responders (75 percent). On the other hand, this of course means that more physicians (25 percent) see this relationship as somewhat non-significant or non-significant as compared to the nurse responders (15.8 percent).

Nursing shortages have been reported extensively in the literature. There are some research findings which report that the work environment is a primary

reason for attrition among nurses (Hinshaw, Smeltzer, Atwood, 1987). Luz Porter (1985) identified the widespread dissatisfaction with working conditions, including nurse-physician conflict, as resulting in significant recruitment and retention problems. Although job satisfaction has been one of the most frequently studied phenomenon in the fields of industrial and organizational psychology for several decades, its applicability to the problems of recruitment and retention in nursing has been understated and understudied. If nurses and physicians do recognize the relationship between collaboration and the recruitment and retention of nurses, then we need to ask why is the lack of such a model so frequently cited as such a high source of job stress and job dissatisfaction.

CHAPTER V

SUMMARY

Overview

This chapter contains a summary of the study, recommendations for future research, suggestions for modifying this study for future research purposes, and possible implications for nursing administrators in the acute care hospital setting.

Summary

The purpose of this study was to explore the collaborative practice environment within an acute tertiary care hospital. The collaborative practice environmental aspects that were explored included:

- (1) determining the degree of stress reported by nurses relative to those clinical practice situations that result in nurse-physician conflict;
- (2) determining the rank order of the nurse-physician conflict variable among several other identified stressors present in the hospital work environment;
- (3) determining how frequently nurses and physicians perceive themselves to practice collaboratively;
- (4) determining if a single definition of collaborative practice is acceptable to both nurses

and physicians; (5) determining nurse and physician satisfaction with the collaborative practice environment at the facility of study; and (6) determining how significant nurses and physicians believe collaboration is to the recruitment and retention of nurses.

Multi-part questionnaires were distributed to a proportionate random sample of 100 nurses and 50 physicians employed at the University of Massachusetts Medical Center in Worcester, Massachusetts. The nurse questionnaires consisted of three parts: a demographic survey; The Nursing Stress Scale (Gray-Toft and Anderson, 1981); and The Nurse Collaborative Practice Scale (Weiss and Davis, 1985). The demographic survey was utilized in order to elicit information concerning the age, sex, educational preparation, years of experience, job position, and specific clinical practice area. The Nursing Stress Scale consists of 34 items that describe situations that have been identified as causing stress for nurses in the performance of their duties. The tool provides as item stress score as well as scores on each of seven subscales that measure the frequency of stress

experienced by nurses in the hospital environment. The Collaborative Practice Scale for nurses is a nine item tool which evaluates two factors. The first factor measures the degree to which a nurse directly asserts professional expertise and opinion when interacting with physicians about patient care. The second factor measures the degree to which a nurse clarifies with physicians mutual expectations regarding the nature of shared responsibilities in patient care.

The physician questionnaires consisted of two parts: a demographic survey and the Physician Collaborative Practice Scale. The demographic survey was utilized in order to determine the characteristics of the physician respondents including age, sex, years of experience, job position and area of clinical specialty. The Collaborative Practice Scale for physicians is a ten item tool which measures two factors. The first factor measures the degree to which a physician acknowledges the importance of nurses' unique contributions to different responsibilities in patient care. The second factor measures the degree to which a physician seeks

consensus with nurses regarding mutual responsibilities and patient care goals. Higher scores imply greater use of collaborative practice by the physician or nurse.

In addition to the above tools, three additional questions were asked to both groups of respondents: (1) Do nurses and physicians agree on a single definition of collaborative practice?; (2) How satisfied both groups are with the amount of collaborative practice that exists within the test facility?; and (3) How significant both groups believe collaborative practice is to the recruitment and retention of nurses?

Conclusion

The significant findings of the study, as reported and discussed in the previous chapter, include: the findings of the Nursing Stress Scale which report that stress associated with nurse physician conflict ranked third out of seven possible stress categories; the fact that, based upon the Collaborative Practice Scale results, physicians perceive that they practice more collaboratively than nurses report themselves as practicing collaboratively;

nurses and physicians do agree on a single definition of collaborative practice; there exists no significant difference in the satisfaction regarding collaborative practice at the test facility as reported by nurses and physicians; a significant relationship does exist between the satisfaction/dissatisfaction expressed by nurses regarding collaborative practice and the stress reported by nurses concerning conflict with physicians; and there exists no difference between the respondents concerning the significance of collaborative practice to the recruitment and retention of nurses.

The problem, as defined by the researcher was the fact that the relationship between nurse-physician collaborative practice and nurse satisfaction in the tertiary hospital setting was not known. Also unknown was the relative degree of stress associated with the nurse-physician collaborative practice environment in that same setting. Based upon the findings of the researcher, this study does address the above "unknowns," at least in the facility where the research was conducted. Weiss and Davis (1985) state that although studies on the effects of

physician-patient and nurse-patient interactions have been reported frequently in the literature, few studies exist that have examined physician-nurse relationships and their impact on patient care. Even fewer studies have examined the impact that physician-nurse relationships might have on job stress and nurse satisfaction, particularly on how that satisfaction might affect the recruitment and retention of nurses in a profession seriously threatened by a critical shortage of nurses. This study provides a framework in which to begin to study the work environment of the acute care hospital and in particular, the less tangible issues of professionalism and professional practice, which have, for so long, been overshadowed by the more tangible aspects of nurse dissatisfaction such as salaries, scheduling non-professional tasks, etc. Nurses have long sought professional recognition from their physician colleagues and have yearned to transform the nurse physician culture from one of knowledge differentiation, to one of a knowledge overlap. Fostering a collaborative practice environment would also help to legitimize the duties and obligations of the professional nurse and would

help to create a work environment in which nurses would have increased job satisfaction with concomitant employee retention.

Recommendations for Further Study

This study provides a structure to begin to evaluate the working environment of an acute care hospital as it relates to nurse-physician relationships and the impact that these relationships might have on nurse job stress and nurse satisfaction. The literature is somewhat weak in terms of evaluating the less tangible issues of professionalism, such as collaborative practice, and assessing the significance of the issue in terms of job stress and job satisfaction and its ultimate relationship to the recruitment and retention of nurses. The more tangible issues of salary, scheduling and non-professional tasks are abundantly addressed in the literature. This overshadowing is not a purposeful disregard of professional issues but rather a result of the severe fundamental problems of salary, scheduling and task overload which have consistently and universally affected the nursing profession for so many decades. However, as nursing and hospital

administrators have been forced to deal with these more tangible aspects of job dissatisfaction during the past few years as a result of a severe nursing shortage, other professional issues of equal significance have surfaced to a critical point as well. These other professional issues have always been of concern, but on a hierarchial scale, could not be fully addressed until the more basic fundamental issues had been resolved. With the implementation of improved pay scales, flexible scheduling alternatives, and staff change mixes which provide ancillary support to the nurses in the hospital setting, the time has come to thoroughly evaluate other professional issues confronting the nurse and to develop a strategy for lessening job stress and improving job satisfaction.

This study did not provide an opportunity to measure the less tangible issues of professionalism against the more traditional issues such as scheduling and salaries in order to evaluate whether current improvements in these working conditions are satisfactory, and if not, how they actually rank side by side with other professional issues. Nursing administrators, in evaluating satisfiers and

dissatisfiers within their nursing departments may certainly want to include all issues.

Further study might also include a much more in depth analysis of the Collaborative Practice Scales. This particular study is limited in that it only reports the self assessment scores of both groups. It would be extremely beneficial to undertake a study whereby after determining collaborative scores via the self assessment methodology, groups of nurses and physicians evaluated one another regarding perceptions of the frequency of collaboration. Weiss and Davis report utilizing such a methodology in a study conducted in 1985. Such a study could be facilitated by small focus groups and would most likely result in opening channels of communication and addressing and clarifying many myths and stereotypes that both groups have historically held for one another.

Another suggestion for further study might be relative to quantifying the expectations that nurses and physicians hold for one another concerning collaborative practice. While this study did report a consensus on the definition of collaborative practice that was presented, it did not provide a forum for the

respondents to discuss practical components of collaborative practice. In the test facility for example, several physicians reported that joint nurse-physician rounds are critical and that nurses there have failed to respond to an invitation to join in patient rounds. Nurses participating in the study never mentioned joint rounds at all. In no way is the researcher implying that joint rounds are not significant to the nurses, rather, the example is provided to reflect that expectations between nurses and physicians regarding aspects of collaborative practice may not be synchronous and might need clarification before any realistic or practical implementation phase can occur.

An additional recommendation for further study might be related to the item regarding how significant nurses and physicians believe the issue of collaborative practice is to the recruitment and retention of nurses. A Mann-Whitney U-test done in order to assess the relationship between the nurse and physician responses to this question was statistically non-significant. It might be interesting to determine whether nurses and physicians are able to see the

benefits of collaborative practice more broadly than only relating to day to day clinical practice situations.

This study did not evaluate the demographic data relative to satisfaction or dissatisfaction concerning collaborative practice. This information would be very beneficial if positive trends/experience could be isolated and studied in order to determine the ingredients of success.

The findings of this study cannot be generalized to a population extending beyond the test facility. Replication of the study would be necessary in order to determine if the findings would be similar in other acute care hospital settings.

Implications for Nursing

Because our society depends so much on various organizations, there is a need to study the work environments found within organizations. Etzioni (1944) stated that we are born in organizations, educated by organizations, and most of us spend much of our lives working for organizations. We spend much of our leisure time paying, playing, and praying in organizations. Most of us will die in an organization, and when the time

comes for burial, one of the largest organizations, the state, must grant official permission.

One of the most prevalent and most important organizations in modern American society is the hospital. Hospitals employ a large number of people, many of whom are nurses; in fact, some 68 percent of nurses do practice in the hospital setting (Manthey, 1988). Numerous studies have suggested that nurses are dissatisfied with the hospital work environment (Hinshaw, Smeltzer and Atwood, 1987; Lemler and Leach, 1986; Roedel and Nystrom, 1988). Although job satisfaction has been one of the most frequently studied phenomenon in the fields of industrial and organizational psychology for several decades, its applicability to the problems of recruitment and retention in nursing has been understated and understudied.

The shortage of nurses in the United States is indeed a significant one, and the accelerating attrition rate in nursing is compounding the issue of an ever decreasing enrollment into nursing educational programs. The attrition rate in nursing is primarily due to two factors: an expansion of the range of jobs

now available to women and dissatisfaction and disillusionment with nursing. Job dissatisfaction in nursing stems from several factors, among them, low salaries, high stress, lack of longevity rewards, inflexible time scheduling, insufficient autonomy, lack of respect, performance of menial tasks, lack of personal job satisfaction, and conflict with physicians.

It may be easier for nurse administrators to come to terms with the more tangible aspect of nurse dissatisfaction (salaries, scheduling, tasks, etc.), however, the less tangible issues of professionalism and professional practice may be as significant as the more tangible elements. Nursing role concepts, particularly in the areas of professionalism, autonomy, and collaborative practice, which are vital to job satisfaction among professionals, have been overshadowed by issues of salaries and scheduling.

Nurse administrators must not ignore the less tangible variables as they represent real and serious issues that must be addressed. If the professional issues that constitute nurses images of themselves cannot be resolved and professional respect and self

esteem promoted, financial rewards and scheduling alternatives will have little influence on the long term problem related to the shortage of nurses.

APPENDICES

APPENDIX A

NURSING STRESS SCALE PERMISSION



1701 North Senate Boulevard
P O. Box 1367
Indianapolis, IN 46206
(317) 924-6411

February 6, 1989

Carol Eliadi, RN, MSN
Director of Perioperative,
Emergency and Critical Care Nursing
University of Massachusetts Medical Center
Department of Nursing
55 Lake Avenue, North
Worcester, MA 01655

Dear Ms. Eliadi:

In response to your inquiry, I am enclosing a copy of the Nursing Stress Scale which you requested. There is no charge for the Scale. You have my permission to use the Scale (with appropriate acknowledgment, of course), in your studies as you indicate in your letter.

Please let me know if you use the Scale or not and, if you do, please send me a copy of the results of your study when completed.

Sincerely,

A handwritten signature in cursive script that reads 'Pamela A. Toft'.

Pamela A. Toft, Ph.D.
Senior Vice President
Human Resources, Organization
Development & Customer Services

PT/js
Enclosures

APPENDIX B

COLLABORATIVE SCALES PERMISSION



AMERICAN JOURNAL OF NURSING COMPANY
555 WEST 57TH STREET • NEW YORK, NEW YORK 10019
(212) 582-8820

September 25, 1989

Carol Eliadi
Director of Perioperative,
Emergency and Critical
Care Nursing
UNIVERSITY OF MASSACHUSETTS
MEDICAL CENTER
55 Lake Avenue, North
Worcester, Massachusetts 01655

Dear Ms. Eliadi:

Thank you for your letter of September 13, 1989 requesting permission to utilize the instrument entitled, "Validity and Reliability of the Collaborative Practice Scales", in your thesis.

You have permission to utilize the instrument providing you use the following credit line:

Copyright 1985 The American Journal of Nursing Company.
From NURSING RESEARCH, September/October 1985, Vol. 34
No. 5. Used with permission. All rights reserved.

If you should publish your research in the future, please inform us so that formal permission applications can be filed.

Thanking you in advance for your cooperation and interest in our material.

GOOD LUCK!

Sincerely,

A handwritten signature in cursive script that reads 'Gloria Gay'.

Gloria Gay
Permissions Coordinator

/gmg

APPENDIX C

PERMISSION TO CONDUCT STUDY



UNIVERSITY OF MASSACHUSETTS

AMHERST • BOSTON • WORCESTER

UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER
55 LAKE AVENUE NORTH
WORCESTER, MASSACHUSETTS 01605

3 - 30 - 89

Dear Carol,

Your research proposal has been received and reviewed by the Research and Evaluation Committee for the Department of Nursing and the following action has been taken:

- ☐ Proposal approved for implementation
- ☐ Proposal referred for consideration by:
 - ☐ Committee for Protection of Human Subjects
 - ☐ Nursing Administration
- ☒ Proposal approved for implementation once the following considerations have been addressed:

Please See Attached Recommendations

Thank you for considering the University of Massachusetts Medical Center for your research. Please contact us if we can be of further assistance. Good luck in your endeavors.

Sincerely,
Jean Breake R.N.C., M.S.
Chairperson, Research and
Evaluation Committee

An Equal Opportunity Employer

APPENDIX D
COVER LETTER TO NURSE RESPONDENTS

Investigator

Carol Eliadi, RN, MSN
508-856-3820 Work
508-845-1847 Home

Advisor

Jack Hruska, Ph.D.
University of Massachusetts
Amherst, MA
413-545-1527

May 9, 1989

Dear Nurse Colleague:

I am a Doctoral Candidate at the University of Massachusetts in Amherst. In partial fulfillment of the requirements for completing my Doctorate in Education, I am conducting my dissertation research in the area of collaborative practice and its relationships to nurse satisfaction.

Staff nurses from various in-patient medical surgical and specialty areas, nurse managers and clinical nurse specialists are being asked to participate in this research project. Enclosed you will find a three part questionnaire. Section I is a demographic profile, Section II is a tool which measures nurse stress, and Section III which measures the degree to which nurses perceive that they practice collaborative behaviors.

There are no risks or benefits associated with participation in this study. Please do not put your name on the questionnaire in order that subject anonymity be maintained. Your willingness to participate in the study, as evidenced by completion of the questionnaire, will serve as your informed consent.

The questionnaire will take approximately ten to fifteen minutes to complete. Please put the completed questionnaire in the envelope provided and place the envelope in the interoffice outgoing mail box on your unit.

I greatly appreciate your willingness to participate in this study. Results of the study will be made available to participants at their request.

Sincerely,

Carol Eliadi
Enclosure

APPENDIX E
NURSING DEMOGRAPHICS

SEX MALE ☐ FEMALE ☐

AGE 22-27 ☐ 28-32 ☐ 33-38 ☐

EDUCATION

DIPLOMA ☐

AD ☐

BSN ☐

MS ☐

OTHER ☐

YEARS OF NURSING EMPLOY

0-5 ☐

6-10 ☐

11-15 ☐

16-20 ☐

20+ ☐

CURRENTLY WORKING

PART-TIME ☐

FULL-TIME ☐

TYPE OF UNIT CURRENTLY WORKING ON

MEDICAL ☐

MEDICAL STEP DOWN ☐

SURGICAL ☐

SURGICAL STEP DOWN ☐

CORONARY CARE UNIT ☐

MEDICAL ICU ☐

CARDIOTHORACIC ☐

SURGICAL ICU ☐

PEDIATRIC FLOOR ☐

PEDIATRIC ICU ☐

O.R. ☐

P.A.C.U. ☐

EMERGENCY DEPT. ☐

PSYCHIATRIC UNIT ☐

POSITION

NURSE MANAGER ☐

CLINICAL NURSE SPECIALIST ☐

NURSE CLINICIAN ☐

NURSE MANAGER ☐

APPENDIX F NURSING STRESS SCALE

Below is a list of situations that commonly occur on a hospital unit. For each item, indicate by means of a check () how often on your present unit you have found the situations to be stressful. Your responses are strictly confidential.

ITEM	NEVER	OCCASIONALLY	FREQUENTLY	VERY FREQUENTLY
1. Breakdown of computer				
2. Criticism by a physician				
3. Performing procedures that patients experience as painful				
4. Feeling helpless in the case of a patient who fails to improve				
5. Conflict with a supervisor				
6. Listening or talking with a patient about his/her approaching death				
7. Lack of an opportunity to talk openly with other unit personnel about problems on the unit				
8. The death of a patient				
9. Conflict with a physician				
10. Fear of making a mistake in treating a patient				
11. Lack of an opportunity to share experiences and feelings with other personnel on the unit				
12. The death of a patient with whom you developed a close relationship				
13. Physician not being present when a patient dies				

Continued

ITEM	NEVER	OCCASIONALLY	FREQUENTLY	VERY FREQUENTLY
14. Disagreement concerning the treatment of a patient				
15. Feeling inadequately prepared to help with the emotional needs of a patient's family				
16. Lack of opportunity to express to other personnel on the unit my negative feelings toward patients				
17. Inadequate information from a physician regarding the medical condition of a patient				
18. Being asked a question by a patient for which I do not have a satisfactory answer				
19. Making a decision concerning a patient when the physician is unavailable				
20. Floating to other units that are short staffed				
21. Watching a patient suffer				
22. Difficulty in working with a particular nurse (or nurses) outside the unit				
23. Feeling inadequately prepared to help with the emotional needs of a patient				
24. Criticism by a supervisor				
25. Unpredictable staffing and scheduling				
26. A physician ordering what appears to be an inappropriate treatment for a patient				

Continued

ITEM	NEVER	OCCASIONALLY	FREQUENTLY	VERY FREQUENTLY
27. Too many non-nursing tasks required, such as clerical work				
28. Not enough time to provide emotional support to a patient				
29. Difficulty in working with a particular nurse (or nurses) on the unit				
30. Not enough time to complete all of my nursing tasks				
31. A physician not being present in a medical emergency				
32. Not knowing what a patient's family ought to be told about the patient's condition and its treatment				
33. Uncertainty regarding the operation and functioning of specialized equipment				
34. Not enough staff to adequately cover the unit				

APPENDIX G NURSING COLLABORATIVE PRACTICE SCALE

Below is a list of situations regarding nurse interactions with physicians. Please answer each question by means of a check () in the appropriate column. Your responses are strictly confidential.

ITEM	NEVER	OCCASIONALLY	FREQUENTLY	VERY FREQUENTLY
1. I ask MD's about their expectations regarding the degree of my involvement in health care decisions				
2. I negotiate with the MD to establish our responsibilities for discussing different kinds of information with patients				
3. I clarify the scope of my professional expertise when it is greater than the MD thinks it is				
4. I discuss with MD's the degree to which I want to be involved in planning aspects of patient care				
5. I suggest to the MD's patient care approaches that I think would be useful				
6. I discuss with MD's areas of practice that reside more within the realm of medicine than nursing				
7. I tell MD's when, in my judgement, their orders seem inappropriate				
8. I tell MD's of any difficulties I foresee in the patient's ability to deal with treatment options and their consequences				
9. I inform MD's about areas of practice that are unique to nursing				

Continued

Do you agree with the following definition of collaborative practice, "A jointly determined relationship between the nurses and physicians working together in practice. The purpose of practice is to integrate their regimen into a single comprehensive approach to their patients' needs"?

AGREE	AGREE SOMEWHAT	DISAGREE SOMEWHAT	DISAGREE
(0)	(1)	(2)	(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

Are you satisfied with the degree of collaborative practice that exists between nurses and physicians at UMMC?

SATISFIED	SOMEWHAT SATISFIED	SOMEWHAT DISSATISFIED	DISSATISFIED
(0)	(1)	(2)	(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

Is the issue of collaborative practice a significant variable in the recruitment and retention of nurses.

SIGNIFICANT	SOMEWHAT SIGNIFICANT	SOMEWHAT NON-SIGNIFICANT	NON-SIGNIFICANT
(0)	(1)	(2)	(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX H
COVER LETTER TO PHYSICIAN RESPONDENTS

March 8, 1989

Dear Physician Colleague:

I am a Doctoral Candidate at the University of Massachusetts in Amherst. In partial fulfillment of the requirements for completing my Doctorate in Education, I am conducting my dissertation research in the area of collaborative practice and its relationship to nurse satisfaction.

In looking at the overall collaborative practice issue, I am interested in how frequently physicians feel that they practice collaborative behaviors.

Attending Physicians and Resident staff from various clinical services are being asked to participate in this research project. Enclosed you will find a two part questionnaire. Section I is demographic profile and Section II is a scale which measures the degree to which physicians perceive that they practice collaborative behaviors.

There are no risks or benefits associated with participation in this study. Please do not put your name on the questionnaire in order that subject anonymity be maintained. Your willingness to participate in the study, as evidenced by completion of the questionnaire, will serve as your informed consent.

The questionnaire will take approximately ten minutes to complete. Please put the completed questionnaire in the envelope provided and place the envelope in the interoffice outgoing mail box.

I greatly appreciate your willingness to participate in this study.

Sincerely,

Carol Eliadi

Enclosure

APPENDIX I
PHYSICIAN DEMOGRAPHICS

SEX

MALE ☐

FEMALE ☐

AGE

20-30 ☐

31-40 ☐

41-50 ☐

51-60 ☐

60+ ☐

YEARS OF PRACTICE

0-5 ☐

6-10 ☐

11-15 ☐

16-20 ☐

20+ ☐

CLINICAL AREA

☐ MEDICAL SPECIALTY _____

☐ SURGICAL SPECIALTY _____

☐ PEDIATRIC SPECIALTY _____

☐ PSYCHIATRIC SPECIALTY _____

POSITION

☐ ATTENDING

☐ SERVICE CHIEF

☐ DEPARTMENT CHAIR

☐ RESIDENT

☐ UNIT DIRECTOR

☐ OTHER

APPENDIX J PHYSICIAN COLLABORATIVE PRACTICE SCALE

Below is a list of situations regarding physicians interactions. Please answer each question by means of a check () in the appropriate column. Your responses are strictly confidential.

ITEM	NEVER	OCCASIONALLY	FREQUENTLY	VERY FREQUENTLY
1. I reinforce the value of nursing care when talking to the patient				
2. I ask for the nurse's assessment of what may be needed to strengthen the patient's support system				
3. I discuss with nurses the similarities and differences in medical and nursing approaches to care				
4. I consider nurses' opinions when developing a treatment plan				
5. I discuss areas of agreement and disagreement with RN's in an effort to develop mutually agreeable health goals				
6. I discuss with RN's the degree to which I think they should be involved in planning and implementing patient care				
7. I work toward consensus with RN's regarding the best approach in caring for a patient				
8. I discuss with RN's their expectations regarding the degree of their involvement in the health care process				
9. I acknowledge to nurses those aspects of health care where they have more expertise than I do				

Continued

ITEM	NEVER	OCCASIONALLY	FREQUENTLY	VERY FREQUENTLY
10. I clarify whether the nurse or I will have the responsibility for discussing different kinds of information with patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Do you agree with the following definition of collaborative practice, "A jointly determined relationship between the nurses and physicians working together in practice. The purpose of practice is to integrate their regimen into a single comprehensive approach to their patients' needs"?

AGREE	AGREE SOMEWHAT	DISAGREE SOMEWHAT	DISAGREE
(0)	(1)	(2)	(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

Are you satisfied with the degree of collaborative practice that exists between nurses and physicians at UMMC?

SATISFIED	SOMEWHAT SATISFIED	SOMEWHAT DISSATISFIED	DISSATISFIED
(0)	(1)	(2)	(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

Is the issue of collaborative practice a significant variable in the recruitment and retention of nurses.

SIGNIFICANT	SOMEWHAT SIGNIFICANT	SOMEWHAT NON-SIGNIFICANT	NON-SIGNIFICANT
(0)	(1)	(2)	(3)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMMENTS:

REFERENCES

- Aiken, L. H., Blendon, R. J., & Rogers, D. E. (1981, September). The shortage of hospital nurses: A new perspective. American Journal of Nursing, 81, 1612-1618.
- Aiken, L. H., & Mullinix, C. F. (1987, September). The nurse shortage: Myth or reality? New England Journal of Medicine, 317(10), 641-646.
- Albrecht, T. L. (1982). What job stress means for the staff nurse. Nursing Administration Quarterly, 7, 1-11.
- American Association of Critical Care Nurses. (1982). Collaborative Practice Model.
- American Hospital Association. (1988). Hospital Statistics. Chicago, IL: The Association.
- Anonymous Editorial. (1977, April). Anesthesia, 32, 311-313.
- Babley, E. (1986, April). Breaking a turnover cycle. Supervisor Nurse, 12(3), 19-21.
- Baggs, J., & Schmitt, M. (1988, Fall). Collaboration between nurses and physicians. Image, 20(3), 145-149.
- Buerhaus, P. I. (1987, November-December). Not just another nursing shortage. Nursing Economics, 5(6), 267-279.
- Campbell C. (1985). Current views of nurses and physicians in cost containment. Perioperative Nursing Quarterly, 1(4), 46-56.
- Chiriboga, D. A., & Bailey J. (1986). Stress and burnout among critical care and medical surgical nurses: A comparative study. Critical Care Quarterly, 9(3), 84-92.

- Christman, L. (1965, November). Nurse-physician communication in the hospital. Journal of the American Medical Association, 4(19), 539-544.
- Devereux, P. (1981, May). Essential elements of nurse-physician collaboration. Journal of Nursing Administration, 5, 19-23.
- De Young, C. (1971). Out of uniform and into trouble Again. Thorofare, NJ: Slack Inc., 22-34.
- England, D. A. (1986). Collaboration in nursing. Rockville, MD: Aspen Systems Corporation.
- Etzioni, A. (Ed.). (1969). The semi professions and their organization: Teachers, nurses and social workers. New York: New York Free Press.
- Felton, G. (1986, April). Harnessing today's trends to guide nursing figure. Nursing and Health Care, 25, 115-120.
- Friss, L. P. H. (1988, Summer). The nursing shortage: Do we like it enough to support it? Inquiry, 25, 232-242.
- Godfrey, M. (1975, May). Working conditions: How do you compare with other nurses? Nursing, 15, 85-102.
- Gray-Toft, P., & Anderson, J. (1981, December). The nursing stress scale: Development of an instrument. Journal of Behavioral Assessment, 3(3), 11-23.
- Hiede, W. (1973, May). Nursing and women's liberation: A parallel. American Journal of Nursing, 824-827.
- Hinshaw, A., Smeltzer, C., & Atwood J. (1987, June). Innovative retention strategies for nursing staff. Journal of Nursing Administration, 17(6), 8-16.
- Holkelman, R. A. (1975, June). Nurse-physician relationships. The American Journal of Nursing, 1150-1152.

- Huey, F., & Haretey, S. (1988, February). What keeps nurses in nursing? American Journal of Nursing, 181-188.
- Kalisch, B., & Kalisch, P. (1977). An analysis of the sources of physician-nurse conflict. Journal of Nursing Administration, 7, 51-57.
- Knaus, W. A., Draper, E. A., Wagner, D. P., & Zimmerman, J. E. (1986). An evaluation of outcome from intensive care in major medical centers. Annals of Internal Medicine, 104, 410-418.
- Koerner, B., Cohen, J., & Armstrong, D. (1985). The impact of collaborative practice on patient satisfaction and selected outcomes. Evaluation and Health Professionals, 8, 299-321.
- Lamb, G. S., & Napadano, R. J. (1984). Physician-nurse practitioner interaction patterns in primary care practices. American Journal of Public Health, 74, 26-29.
- Lemler, S. F., & Leach, A. K. (1986, April). The effect of job satisfaction. Nursing Management, 17(4), 66-68.
- Mailick, M., & Ashley, A. (1982). Politics of interprofessional collaboration. Social Casework, 62, 131-137.
- Mann, E. E., & Jefferson, K. (1988, July/August). Retaining staff: Using turnover and surveys. Journal of Nursing Administration, 18(7), 17-23.
- Manthey, M. (1988, March). Primary practice partners: A nurse extender system. Nurse Management, 19(3), 58-60.
- Mauksch, H. (1989). Physicians and nurses to be studied (an announcement of a funded study). Hospital Guest Relations Report. Silver Spring, MD: Business Publisher, Inc.

- Mauksch, I. G. (1981, June). Nurse-physician collaboration: A changing relationship. Journal of Nursing Administration, 11, 35-38.
- Maslach, C., & Pines, A. (1979). Experiencing social psychology. New York: Random House.
- Massachusetts Hospital Association. (1987, December). MHA Newsletter.
- Minnick A., Roberts, M., Curran, C., & Ginzberg, E. (1989, September-October). What do nurses want? Priorities for action. Nursing Outlook, 37(5), 215-218.
- Morris W. (1983). The American heritage dictionary of the English language. Boston: Houghton Company.
- National Commission on Nursing. (1983). Summary report and recommendations.
- Pines, A., & Kanner, A. (1982, August). Nurses' burnout: Lack of positive conditions as two independent sources of stress. Journal of Psychosocial Nursing, 20, 30-35.
- Porter, L. (1985). Is nursing ready for the year 2000? Nursing Forum, 2, 53-57.
- Porter, R. T., Porter, M., Lower, M. (1989, February). Enhancing the image of nursing. Journal of Nursing Administration, 2(19), 36-40.
- Prescott, P., Dennis, K., & Jacox, A. (1987). A clinical decision making of staff nurses. Image, 19, 56-62.
- Quirk, Barbara. (1984). Identification of factors related to staff nurse job satisfaction/satisfaction. Abstracts of Health Care Management Studies, 241, 28231 NU. (University Microfilms No. DA8414824).

- Roedel, R., & Nystrom, P. (1988). Nursing jobs and satisfaction. Nursing Management, 19(2), 114-119.
- Ratliff, N. (1988, March). Stress and burnout in the helping professions. The Journal of Contemporary Social Work, 147-154.
- Richmond, D. (1987). Nursing: An endangered profession. Modern Healthcare, 17(7), 32-38.
- Seybolt, J. W. (1986). Dealing with premature employee turnover. Journal of Nursing Administration, 16(2), 26-32.
- Singleton, E. K., & Neil, F. C. (1984). Autonomy in nursing. Nursing Forum, 3, 123-130.
- Stahl, L. D. (1985). Demystifying critical care management. Journal of Nursing Administration, 15(11), 14-21.
- Styles, M. (1984). Reflections on collaborative and unification. Image, 16, 21-23.
- Tobin, B. (1987, May/June). Reader poll report. Nursing Life, 42-45.
- Wandelt, M. (1980). Conditions associated with registered nurses employment in Texas. Austin, TX: University of Texas School of Nursing.
- Weiss, S. J., & Davis, P. (1985, September/October). Validity and reliability of the collaborative practice scales. American Journal of Nursing, 34(5), 299-305.
- Winker, C., & Lee, N. (1982, November/December). Developing a joint practice team. Dimensions of Critical Care Nursing, 1(6), 360-363.
- Yankilovich, D. (1979). Work, values and the new breed. Paper presented at the Zoology of Work Conference.

